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THE

AMERICAN FARMER,

CONTAINING

ORIGINAL ESSAYS AND SELECTIONS

ON

AGRICULTURE, HORTICULTURE,

RURAL AND DOMESTIC ECONOMY,

AND

INTERNAL IMPROVEMENTS:

WITH

ILLUSTRATIVE ENGRAVINGS AND THE PRICES OF COUNTRY PRODUCE.

JOHN S. SKINNER, Editor.

> "*O fortunatos nimium sua si bona norint*
> "*Agricolas.*"............................Virg.

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AMERICAN FARMER.

RURAL ECONOMY, INTERNAL IMPROVEMENTS, PRICES CURRENT.

"O fortunatos nimium sua si bona norint
"Agricolas."..................................Virg.

Vol. XI. BALTIMORE, MARCH 20, 1829. No. 1.

AGRICULTURE.

1 *An Inventory of the Stock on the O—— H—— Farm, 1st January*, 1829. 1

Fo.	14	Stock,	$ 1660		Fo.	3	Horses, 5 head, worth	$ 210	
	15	D—— F—— for 26 sheep,	62			4	Cattle, 20 head, worth	220	
						5	Sheep, 167 head, worth	368	
						6	Pigs, 21 head, worth	89	
						7	Poultry, various kinds, worth	20	
						8	Stores, farming gears, worth	30	
						8	Do. Hoes, Axes, and other tools, worth	30	
						8	Do. Ploughs and Harrows,	35	
						8	Do. Wagon, Cart, and Cider Mill,	70	
						8	Do. Sacks and other stores,	20	
						9	Corn, 40 barrels, worth	100	
						10	Rye, 100 bushels, 50 cents,	50	
						10	Rye, 20 acres sown,	50	
						11	Wheat, 100 bushels, $1·50	150	
						11	Do. 20 acres sown, $3 50,	70	
						12	Grass seeds, 30 acres sown,	60	
						13	Hay and other fodder,	100	
						2	Cash in hand,	50	
			1722	00			Total amount of Property,	1722	00

2 *Dr.* *Cash.* *Cash.* *Cr.* 2

1829 Jan. 1	1	Cash in hand,	50		1829 Jan. 2	15	D—— F—— for 26 Sheep,	62	
3	4	Cattle, 2 fat steers sold,	50		10	8	Stores, Cutting-Box,	18	
10	11	Wheat, 100 bushels sold,	183		12	16	Profit and loss, 25 lbs. Nails,	2	
	4	Cattle, 40 lbs. butter sold,	15			4	Cattle, 4 dry Cows,	30	
	4	Cattle, 2 fat calves sold,	10			3	Horses, a yearling Mare,	25	
	7	Poultry, sold,	2	50	15	17	House expenses,	15	
15	5	Sheep, 5 wethers sold,	17	50		16	Profit and loss, expenses at town,		40
24	4	Cattle, 30 lbs. butter sold,	10	75	31	18	Labour, provision and clothing for five hands, one month,	16	
	5	Sheep, 5 wethers sold,	17		31	18	Do. one month's hire of five Negroes,	15	
						16	Profit and loss, Blacksmith's work,	5	
						17	House expenses,	10	
						19	Cash on hand,	157	35
			355	75				355	75

3 *Dr.* *Horses.* *Horses.* *Cr.* 3

1829 Jan. 1	1	5 Horses, worth	210		1829 Jan. 31	11	Wheat 1-20 25 cents,	5	
12	2	1 yearling Mare bought,	25			16	Job work 1-60 25 "	15	
31	10	20 bushels Rye,	10			19	6 Horses, now worth	235	
	13	Hay,	10						
			255					255	

4 *Dr.* *Cattle.* *Cattle.* *Cr.* 4

1829 Jan. 1	1	20 head, worth	220		1829 Jan. 3	2	2 fat Steers sold,	50	
12	2	4 dry Cows bought,	30		10	2	40 lbs Butter,	15	
31	13	Hay,	10			2	2 fat Calves,	10	
	9	20 bushels Corn,	10		24	2	30 lbs. Butter,	10	75
	16	Profit,	35	75	31	19	22 head Cattle, worth	220	
			305	75				305	75

5 *Dr.* *Sheep.* *Sheep.* *Cr.* 5

1829 Jan. 1	1	167 Sheep, worth	368		1829 Jan. 15	2	5 Sheep sold,	17	50
31	18	Labour,	2	50	17	2	5 do. do.	17	
	13	Hay,	5		31	19	157 Sheep now on hand,	365	
	16	Profit,	24						
			399	50				399	50

6 *Dr.* *Pigs.* *Pigs.* *Cr.* 6

1829 Jan. 1	1	21 Pigs, worth	89		1829 Jan. 31	19	21 Pigs, now worth	99	
31	9	20 bushels Corn,	10						
			99					99	

7 *Dr.*		*Poultry.*					*Poultry.*	*Cr.*	7
1829 Jan. 1	1	Various kinds, worth	$ 20		1829 Jan. 10	2	Poultry, sold	$ 2	50
					31	19	Present stock, worth	17	50
			20					20	

8 *Dr.*		*Stores.*					*Stores.*	*Cr.*	8
1829 Jan. 1	1	Farming gears,	30		1829 Jan. 31	16	Deduct for wear and tear, being at the rate of 10 per cent. per annum,	1	80
	1	Hoes, Axes, and other tools,	30			16	Present stock of stores, valued at	201	20
	1	Ploughs and Harrows,	35						
	1	Wagon, Cart, and Cider Mill,	70						
	1	Sacks and other stores,	20						
10	2	Cut-Box,	18						
			203					203	00

9 *Dr.*		*Corn.*					*Corn.*	*Cr.*	9
1829 Jan. 1	1	40 barrels on hand,	100		1829 Jan. 31	6	20 bushels to Pigs,	10	
31	18	Labour,	5			18	8 do. to Negroes,	4	
						4	20 do. to Cows,	10	
						19	152 do. on hand,	76	
						19	Work done towards next crop,	5	
			105					105	00

10 *Dr.*		*Rye.*					*Rye.*	*Cr.*	10
1829 Jan. 1	1	100 bushels on hand,	50		1829 Jan. 31	3	20 bushels to horses,	10	
1	1	20 acres sown,	50			19	80 bushels on hand,	40	
						19	Seed and labour towards next crop,	50	
			100					100	00

11 *Dr.*		*Wheat.*					*Wheat.*	*Cr.*	11
1829 Jan. 1	1	100 bushels on hand,	150		1829 Jan. 10	2	100 bushels sold,	183	
1	1	20 acres sown,	70		31	19	Seed and labour, towards next crop,	70	
31	18	Labour,	5						
	3	Horses,	5						
	16	Profit,	23						
			253					253	00

12 *Dr.*		*Grass Seeds.*					*Grass Seeds.*	*Cr.*	12
1829 Jan. 1	1	30 acres sown,	60		1829 Jan. 31	19	Balance,	60	00

13 *Dr.*		*Hay.*					*Hay.*	*Cr.*	13
1829 Jan. 1	1	Hay and other fodder,	100		1829 Jan. 31	3	To Horses,	10	
						4	To Cattle,	10	
						5	To Sheep,	5	
						19	Present stock worth,	75	
			100					100	00

14 *Dr.*		*Stock.*					*Stock.*	*Cr.*	14
1829 Jan. 31	19	Whole amount of Property,	1671	05	1829 Jan. 1	1	Whole amount of property,	1660	
					31	16	From profit and loss being the profits of this month,	11	05
			1671	05				1671	05

15 *Dr.*		*D—— F——.*					*D—— F——.*	*Cr.*	15
1829 Jan. 2	2	Cash in full,	62		1289 Jan. 1	1	26 Sheep,	62	00

16 *Dr.*		*Profit and Loss.*					*Profit and Loss.*	*Cr.*	16
1829 Jan. 2	2	25 lbs. Nails,	2		1829 Jan. 31	4	Profit by Cattle,	35	75
15	2	Expenses at Town,		40		5	Profit by Sheep,	24	
21	2	Blacksmith's work,	5			11	Profit by Wheat	23	
31	18	Job work *by hands,*	15						
	3	Do. by horses,	15						
	8	Stores, wear and tear,	1	80					
	17	Housekeeping expenses,	32	50					
	14	To stock, *being the profits of this month,*	11	05					
			82	75				82	75

17 *Dr.*		*Housekeeping.*					*Housekeeping.*	*Cr.*	17
1829 Jan. 15	2	Cash,	15		1829 Jan. 31	16	Carried to profit and loss,	32	50
31	2	Do.	10						
	18	Labour,	7	50					
			32	50				32	50

18 *Dr.*		*Labour.*					*Labour.*	*Cr.*	18
1829 Jan. 31	9	8 Bushels Corn,	$ 4		1829 Jan. 31	9	Corn 1-20 (clearing land for next crop) 25 cents,	$ 5	
	2	Other provisions and clothing for one month,	16			16	Job work 1-60 (Fencing &c.) 25 cents.	15	
	2	1 month's hire of 5 negroes,	15			11	Wheat 1-20 (Dressing up 25 cents,	5	
						5	Sheep 1-10 (Feeding &c.) 25 cents,	2	50
						17	House 1-30 (Domestic work) 25 cents,	7	50
			35					35	00

19 *Dr.*		*Balance.*					*Balance.*	*Cr.*	19
1829 Jan. 31	2	Cash Balance,	157	35	1829 Jan. 31	14	Stock Balance,	1671	05
	3	Horses,	235						
	4	Cattle,	220						
	5	Sheep,	365						
	6	Pigs,	99						
	7	Pooltry,	17	50					
	8	Stores,	201	20					
	9	Corn,	81						
	10	Rye,	90						
	11	Wheat,	70						
	12	Grass seeds,	60						
	13	Hay,	75						
			1671	05				1671	05

To the Editor of the American Farmer:

I have lately noticed your observations in the Farmer, of 26th December last, respecting the proper mode of keeping farming accounts, and beg leave to observe, that for the last twenty years I have kept my farming books on the plan given above, and have found it to answer entirely to my satisfaction, in every respect, as it has enabled me to ascertain, at the end of every year, the profit or loss, in a distinct manner, on each kind of live stock, and also each kind of grain I have been cultivating during that year—as also the labour done by the workmen, and their cost in wages and support; the cost and labour of my horses, and my housekeeping expenses, as also many other matters, all of which ought to be ascertained by a farmer, in order that he may know how to regulate and conduct his business to the greatest advantage, and *keep his expenditures within his income;* the first step towards which is, to never either *give* or *take credit.* I have invariably attended to this cardinal resolution for more than seven years, nor shall any thing again tempt me to depart from it. Indeed, I hate the whole sytem of credit, and if no such thing was known amongst us, mankind would be so much more honest and happy, that we should have but little occasion for either lawyers or doctors—a very numeroos body of gentlemen, who thrive on the misfortunes of their neighbours.

As my son commenced keeping books in this manner on the 1st January last, I had intended to have given you an exact copy of his account book for that month, but have found it necessary to vary a little from it, in order to give a greater variety to the entries than an exact copy of his book would have done. The month's accounts have been balanced, in order to show how the book ought to be balanced at the end of every year, when an entire fresh inventory of the stock on the farm should be taken, in the manner this account commences.—Many good farmers lose their way to profit by bestowing nearly all their industry on some part of their business which, generally, is unprofitable to them, and frequently neglect some part of it which might, with no more industry or care, remunerate them well for their trouble.

Should you, or any other person, wish to keep books in this manner, proceed thus: take an exact account of all the property you have, debts owing you, and cash in hand, and enter them all, in a book properly ruled on the right hand page, in the manner of the inventory above; then enter, on the left hand side of the same page, all the money you owe, and to whom it is due; and the balance of these two sides of your book will be the "stock" of property you are worth. Let these pages be posted on the *reverse* side of a page, to the one they now are entered on, and the inventory marked in the ruled line, immediately after the line for the dates, with the page to which you have posted that entry—your book is then fairly opened by double entry, that is, each article or thing will then be entered twice, once on the debit, and once on the credit side of your book, a thing that must always be rigidly attended to in every succeeding entry

The cash in hand you will observe, is to be posted on the debit side of the page, under the head cash—it will then stand debtor in your book, and for the future cash must be debited on this page, for every sum of money you receive, and state from what source you receive the money, exactly in the same manner, as you would debit any person to whom you pay money, and when you pay money for any thing, cash must be credited in like manner, never losing sight of this essential, that the name entered at the head of every page, whether it be horses, cattle, stores, profit and loss, or the like, is always to be debited or credited as the case may be, for every thing it may take or furnish to your farm, exactly in the same manner, as though it was a person—cast up these two sides of your book under the head cash, every two weeks, at the least, and the balance of them will be the amount of money you ought to have in your pocket—and should there be any difference between them, you may be sure something has been omitted to be entered, or you have misreckoned the pages; great care is required in entering matters, either in the inventory, or under the head cash; that each line be made up of only such things, as are to be posted under one head, that is, should you receive or pay money for both horses and cattle, make a distinct line of entry for each, as each must be posted under a different head, and on a different page; at your leisure post this cash account under their proper heads, taking great care to post those entries on the left hand, or debit page to the right hand, or credit page, and *vica versa*—thus, if you have received money for a horse, cash stands debtor, and therefore horses are to be credited, or should you have paid money for a horse, cash will stand credited, and therefore horses are to be debited for the amount, or should you buy any thing on credit, a horse for instance, horses are to be debited, and the person from whom you bought him, is to be credited, and when you pay for this horse, cash is to be credited, and the person to whom the money is paid, is to be debited for the amount, and if you sell a horse on credit, you reverse these entries of course, taking care to never make an entry under the head cash, but when cash is actually either received or paid.

In posting your book from the inventory, corn, rye, hay, &c. will each have a separate page of entry, and stand debited, for the stock of each you may have on hand at taking the inventory, and as your live stock will constantly be consuming this produce, you must occasionally debit each kind of live stock for its proportion of such feed, which in your opinion has been consumed, since you last made a similar apportionment; and of course, each kind of feed is to be credited, for a sum equal to the amount, you have debited the live stock.

If you buy a wagon, or cart, or plough, &c. by which your property in dead stock is actually increased, you will debit stores for the amount paid, and credit cash for a similar sum of money, but should you buy any thing that will not actually increase your dead stock, but be shortly consumed, as nails, or mending any thing, or only replacing an article that is worn out, then you will credit cash, and debit profit and loss for the amount.

Your house-keeping expenses, will of course, be debited for every thing furnished to your house, and if the thing has been furnished by your farm, wheat for instance, a similar credit will of course be made under the head wheat, or should cash have paid for it, cash must be credited in like manner; all money paid for your pleasures, and from which you do not increase your property in like proportion, must be posted to the house expenses, your housekeeping expenses will then be ascertained, and on balancing your book at the end of the year, the whole cost of it, must be transferred to the debit of profit and loss.

You may keep an account of the work done by the hands, either by entering it every evening in your book, or what I prefer entering it on a slate, mine has long been done, by my son, on a slate, in this manner, should my five hands have been employed on the 1st January, in clearing land for corn, in the evening he enters on the right side of his slate, thus; corn 1-5 meaning that on 1st January, five hands has been employed at corn, next day the five hands may have been employed at wheat, which is thus entered, *under* the head corn, wheat 2-5, meaning, that on the 2d, wheat had given employment to five hands; next day wheat may have employed them again, when he enters on the same wheat line 3-5, and entries are made in this manner until the end of the month, when he ascertains the labour bestowed under each head, and I enter it in the book, under the head labour, on the credit side, thus, corn 1-20, meaning, that 1st month; corn has given employment to hands, equal to 20 men one day; wheat is then written under this line, and a similar entry made; every succeeding month, the labour is ascertained, and entered on the same line, as the first entry, making together not more than twelve entries on the same line, in a year, and the labour may thus be divided, under as many heads as you see necessary, the residue of the labour, may then be placed under one general head; job work, meaning chance work, such as getting fire wood, mending fences and the like.—The whole number of days work, done under each head, during the year is then ascertained, and entered on the end of the same line, which all added together, shows the number of days work done by all the hands during the year, say 1200, on the reverse side of this page, is entered all the expenses, attending the pay and support of these hands, say, 360 dollars, which sum divided by 1,200, shows a cost of thirty cents, for each day's work, done by each hand, during the year, then multiply the total number of days work, at the end of the line, corn, say, 200, by this thirty cents which will make 60 dollars, and this will be the cost of the corn crop, in manual labour for one year, figure this 60 dollars out and labour will stand credited this sum, then post it to the debit of corn, and this entry will be completed, all the other heads of entry, may be finished in like manner, but the one under the head job work, must go to the debit of profit and loss—the labour of the horses may be ascertained, and entered exactly in the same manner; after posting all these entries under the heads labour, and horses, should a small balance remain, post it to the debit or credit of profit and-loss, as the case may be.

When you have an increase of live stock, you may either let it remain, until the end of the year, before you place it in your book, or you may, under the proper head, enter it on the debit page, in the way of a memorandum, but no other entry is required, as this increase ought not to have any money attached to it.

At the end of the year, and after all the accounts have been posted, and thoroughly examined, to see that all has been done correctly, proceed to balance your book, as shown in the above statement, that is look carefully over each separate head of entry, and ascertain the amount of property under that head, which you still have on hand, and its then value, and when satisfied of its correctness, credit that head of entry for the amount; thus, should you find, under the head wheat, that your then stock on hand, is worth $200, credit wheat this $200, and debit balance for it, then cast up the two sides, under the head wheat, and the balance of them, is to be posted, to the debit or credit, of profit and loss, as the case may be, the head wheat will then be balanced, and when all the other heads of entry, are balanced in like manner, proceed to balance profit and loss, and post its balance, to the debit or credit of stock, as may be required; your stock—that is, your clear property, is never to have any entry made under it, excepting only this entry, from profit and loss, once a year,—and should you have to place it on the debit side of stock, be assured your property is wasting, and set about at once, and with the most determined resolution, to reduce your house-keeping expenditure, or perhaps, you too soon, may find yourself a ruined man,—when it is said house-keeping expenses, it must be distinctly understood, as including every sum of money, spent either in supporting the family, or in any of its *pleasures*.

Should these sides of balance agree, you may conclude that the whole book, has been kept correctly, since the last balance,—but should there be any difference between the casting of the sides, you may rest assured something is wrong entered, or else that the casting up is wrong.

Should any person think this mode of keeping farming books, too tedious, let him reflect on all the advantages of a farmer knowing correctly, the exact profit or loss of each kind of live stock, and cropping, with all the other advantages of knowing all his debts and credits, as also the information in book keeping which may be acquired by a rising family, and how easily executors could settle such books, and their trust; and as to time, every farmer has plenty of leisure to keep such books, and ultimately, perhaps he would find it far more beneficial to his family, and satisfactory to himself, than spending his leisure time, in smoking segars, and drinking whiskey. You have my address, and should any one wish to have any further explanation, I shall have great pleasure in giving it, provided the postage of letters be paid. ALBION.

HEMP.

Cultivation and Preparation of Hemp, as practised in Kentucky.

The most fertile of our lands are selected for the production of hemp, and that which has been used as meadow or pasture for a long time, is preferred to any other, experience having proved that it is best adapted to the purpose. This (if practicable,) is ploughed late in the autumn, and exposed, untrodden by stock, to the frosts of winter; ploughed again as early in the spring as the season will permit, and again immediately preceding the sowing of the seed. Great care is taken to harrow the ground until the clods are completely broken, and to give it as even a surface as can be produced by the use of the common harrow.

The seed is sown from the 20th of April to the middle of May, (after spring frosts are over,) at the rate of from a bushel and a fourth to a bushel and a half to the acre, and twice harrowed. The crop then requires no further attention until it is *cut.*—Its fitness for the knife must be determined by the appearance of the hemp, and not by the length of the time it has been growing, or the season of the year. The indications of fitness for cutting are a change in the colour of the leaf from a deep green to a yellow, and the rising, upon the least agitation, of a vegetable dust from the hemp. The ripening of the crop is generally partial and unequal in different parts of the same field, and regard ought to be paid to that circumstance in cutting it, taking such portions of it first as give the strongest indications of ripeness. It is not necessary or proper to wait for a decided change of colour *in all* the leaves, before the harvest commences; on the contrary, it is more advantageous to commence when the change is only partial, and as soon as the dust spoken of begins to rise, or is produced by agitating the hemp with a stick or the hand In Kentucky, the practice of cutting hemp has in a great measure superseded the old practice of pulling it up by the roots, and is found to be greatly preferable, being less laborious, and rendering the hemp better and easier to handle. The operation is performed with a knife, (commonly called a hemp hook,) made somewhat in the shape of a sickle, but heavier and not so long, and having a smooth and sharp edge. As the hemp is cut, it is spread out upon the ground from which it is taken, and permitted to remain there until the leaves are well wilted, and will easily separate from the stalks It is then gathered into sheaves, but not bound, and the leaves beaten off with a stick, and immediately immersed, if water rotting is intended; if not, it is set up in stacks of from three to five feet in diameter at the ground, and tied closely together at the tops so as to prevent it from falling; the middle of the stack should be left hollow to give it air, near the earth. It is then suffered to stand until perfectly dry, when it is separated and bound into small sheaves, and put up in stacks or ricks, and secured by a covering of boards or straw, to secure it from getting wet in the interior of the stack. It can, however, be so stacked as to be secured from water without any other covering than a thatch of hemp, but some skill to be acquired only by practice is necessary to do it well.

It remains in the stack until the season for rotting arrives; it is then taken down and spread out (on grass, if to be had,) as equally as possible, and exposed to the weather until it is found to be ready for the brake. (Our western autumns and winters are attended with so little snow as to give us choice of time from September until February for rotting.) Care must be taken to take the hemp up as soon as it is fit for the brake, or a loss will be sustained. (If, however, it should be found at any time to be injured by too long an exposure, it is not thrown away, but again stacked, and brought to the brake the succeeding year, when it will be found to have regained its strength, if not absolutely *rotted* before it was taken up)

When ready for the brake, we take it from the ground and stack it in small stacks, as in the first instance after cutting, and then proceed to break it, on brakes made on the plan of our common flax brake, but much larger, say from five to six feet in length, having the slats much deeper and wider apart, and wider in proportion at the heel of the brake than the flax brake. With such a brake, a good labourer will brake 100 lbs. in a day in February, and some will break double that quantity.—The seed is raised by planting in hills like Indian corn, planting four or five seeds, and pulling all out but the most thrifty plant. A single acre of rich land has been known to produce sixty bushels of seed. We are very little in the habit of water rotting our hemp, but what has been thus prepared is found to be equal to the best Russia hemp; from three to five days, in a very warm season, is found to be sufficient for this process, if the water be stagnant; longer, if running.

An opinion prevails where the cultivation of hemp is not common, that it is a very exhausting crop—The fact, however, is otherwise, and we cultivate three successive crops on the same land with less exhaustion than is occasioned by either the corn or wheat crop; and no crop leaves ground so light as to entirely destroy the production of weeds.

A KENTUCKIAN.

ON THE CLIMATE, &c.

J. S. SKINNER, Esq. *Near Richmond, Va.*

It is now the 2d of March,—the ground is white with snow and though a bright sun shines over our heads, a strong north west wind makes the cold excessive, and ice houses might this morning be filled. It is certainly not extraordinary for us to have cold weather in March, though it is not often so extreme as at present, but the contrast between this winter and the last, is most remarkable. In February 1828, there was no interruption by frost to farming operations, even to ploughing, for a single day. In the last month scarcely a furrow was turned. Tender plants, as the sweet bay and English laurel, that I have never known before to remain in the open air uninjured, in the winter of 1827—1828, had not a leaf seared. This winter has been destructive to every plant that cannot stand our most severe frosts, and green houses have in many instances proved an insufficient protection to the common exotics which are most easily preserved. The last was an Italian, the present is a Siberian winter. The face of nature, is of course, entirely different from what it was a year ago. The early kinds of wheat were then generally from six to eight inches high, but now the fields are bare, and it is only when they are between the observer and the sun, that a tinge of green is perceived. In 1828, the months of March and April, were colder than January and February—a singular fact. The degree of cold this winter has not been at any one time extraordinary; but its uninterrupted continuance for two months, during the greater part of that time suspending many of the most important agricultural labours, is inconvenience to which, fortunately, in this climate, we are not much accustomed.

With the most favourable prospects during the winter and spring, I have ever known, our hopes were disappointed in the last harvest. The white May wheat was almost entirely destroyed while in the *boot* by the cold weather in April and May, and that which was sown after judicious farmers considered it too late to sow, alone produced a crop; as we shall certainly experience no loss in the next harvest from the too great forwardness of the wheat, one danger (and not an uncommon one) is removed—whether the opposite evil is not as serious, is another affair—but as far as my own observation extends there is wheat enough alive on the land, and if the spring be mild, we have no reason to despair of a good harvest.

I have made these remarks to call the attention of yourself and your correspondents to the subject of the climate of our country. It has caused surprise to me, that in a work like yours, which seems to embody all the agricultural information of the nation, and has in a great measure superseded every other publication on such subjects, there should be no meteorological tables, published at regular intervals from different parts of the United States, accompanied with *remarks on the effects of the seasons, on vegetable and animated nature.* These would render such tables far more valuable than a mere series of thermometrical observations. In a scientific view, they would be highly interesting, nor would they be without their practical utility. A farmer is guided chiefly by his own experience of the seasons, in sowing, planting, and performing many other operations. To have in addition to that experience, the records of more seasons than he can have observed, is highly desirable,—and should it be ascertained that the prevalent opinion that a progressive amelioration is taking place in our climate, be correct, it may lead to the introduction of new crops. A comparison of our seasons, with those of the different countries of Europe, would also be useful, especially with regard to the cultivation of the vine.

The various *Agricultural Societies*, would confer a great benefit on the country by turning their attention to this subject. By exchanging their observations with the *Societies* in Europe, who, if I mistake not, are careful to preserve regular meteorological tables, a comparative estimate of the climate of the two continents might be formed.

Here let me remark that I consider it very doubtful whether our climate has undergone the slightest change, since the first settlement of the country. I do not perceive that plants, (the best criterion of a climate,) which formerly were unable to stand our winters, are now enabled to do so. The sweet bay, the English laurel, and the pomegranate have flourished in the lower parts of our State, where the rivers are wide, as far back as the memory of the oldest inhabitant extends. They are yet confined to that part of the state,—a few may be found in the gardens of Richmond, but unless protected, they only serve to show that they were not intended for this climate. The fig is at least as precarious as ever—an English laurel, one of the noblest plants I ever saw, was killed by the severity of the weather within the last five years. It was at a seat on James' River, about 25 or 30 miles below Richmond, and could not have been less than half a century old.* I am aware that the cultivation of cotton and of sugar, is now extending northward—but that may be ascribed to the circumstance that the cultivation of cotton is more profitable than of grain, and of sugar more than of cotton. The most productive crop must necessarily have a tendency to extend itself to the extreme limits of the climate and soil, in which it can be cultivated with success.

These imperfect remarks will not be without their use, if they can direct the attention of persons more competent than I am, to pursue the investigation, to the subject on which they are made. I have no doubt you will see the importance of it, and recommend it with more force to your correspondents than I can do.

M.

HORTICULTURE.

FRUIT TREES, &c.

Copy of a letter from Samuel Bailie, Esq. of Virginia, to William Prince, Proprietor of the Linnean Botanic Garden at New York.

Dear Sir: *January* 12, 1829.

The box of Fruit trees, &c. arrived here on the 6th instant, every thing in excellent order. I am much pleased with your superior manner of packing, you have executed my order to my entire satisfaction. Seven weeks exactly from the date of your bill, they were eight days lying in New York, before shipped. I planted them immediately in their respective places, I binded down the long stems of the grapes, and covered the whole with earth, then over that, and the roots of all the trees with short straw. The next day it rained heavily throughout, the mercury standing at 65°. and the day following with a severe frost, mercury at 8°. This sudden change of temperature is incident to this climate, and in the spring months the white frosts cutting down every thing in its way, leaves the anxious husbandman, sometimes a scanty gleaning.

I am much pleased with your treatise. Its importance to the Horticulturist for directing in the choice of fruit, &c. will, I have no doubt be very acceptable, and especially to those situated in the backward parts of our country. I thank you for the kind present you made me in fruit trees, &c. I hope in the course of next season, to make you a reciprocal return of the native productions of our mountainous country.

I should have written before this, but was anxious to see the goods first. I would wish to be informed how I am to send any package to you and when your work which is now in hands will be ready for sale. As your establishment is really a national one, every lover of his country is interested in its prosperity, and therefore ought to contribute his mite to American Eden.

(From the New York Farmer.)

CHEAP METHOD OF FORCING RHUBARB.

My rhubarb plants grow on an east border, a few feet from my barn and stable door, separated from the latter by a fence—the soil therefore very rich. In March, or sooner if I please, I place an old flour barrel, having but one head, over each stool or plant, the head uppermost to the extent that I wish to force. I then with a dung fork proceed to cover the barrels and to fill the intermediate spaces with fresh stable dung, to the thickness of a foot or more all round and above the casks. A fermentation soon commences, and the heat thus generated, the atmospheric air being excluded from the casks, soon causes the plant to grow vigorously, and in two or three weeks the barrel becomes literally filled with fine blanched, semi-transparent leaf stocks of the rhubarb. I carefully remove the manure, raise the barrel, break off the largest leaves, but am careful not to disturb the crown, and then replace the cask and manure for a second crop. I have in this way taken enough from a single plant, in April, for ten or a dozen pies. The leaf stocks thus blanched, require no pealing. They are very brittle and juicy, and require to be merely washed and cut to prepare for cooking. Sea Kale is forced by the same process.

J. B.

Albany, February, 1829.

RURAL ECONOMY.

BEES.

The last North-American Review contains an article on the management of Bees, written by a gentleman who has, for seven years, had a colony of Bees under his immediate inspection, and who has devoted much of his time to the observation of their habits, customs, and manners. He says the honey bee is a native of every part of the globe, and that it is every where distinguished by the same traits, with the slight variation produced by climate. It preserves the same singular economy in the hollow tree of the forest and in the hive of the bee shed; it is the same in all situations and in all ages. The bee never changes its food; it forever partakes of the nourishment extracted from the nectary of flowers. The scent of bees is so acute that every flower which has a powerful odour can be discovered by them at a great distance. They resort to the dung hill and the pig pen, not for honey, but for medicine. They sometimes carry the juices of the peach and of other fruits to their cells. The average number of a hive or swarm is from 15 to 20,000 bees. If the swarm consists of 20,000, there are 19.499 working bees, 500 drones, and *one* queen or mother. One queen lays all the eggs in a hive, she never leaves the hive for a moment except when she goes forth with a new swarm. When a queen bee dies or leaves the hive, all the bees run about in great agitation for a day or two, before they make an effort to repair their loss. They then search for cells where queen's eggs, (eggs which will produce queens,) have been deposited; they enlarge these cells, if necessary, and enable the queen bee to grow, and she soon comes out perfectly formed, to the great pleasure of the bees.

This writer says, that it is disgraceful to such a country as ours to import wax or honey, and that we ourselves ought to export tons of it every year. He thinks that Massachusetts and Connecticut are well situated, and abundantly supplied with proper food for bees, and that keeping of bees is an occupation easily followed, requiring little capital, and yielding an enormous profit. His remarks on the care of bees, the construction of hives, the method of guarding the hive against the inroads of the miller or moth, &c. are very valuable.

[*Hampshire Gazette.*

(For the American Farmer.)

OLD FEATHERS BETTER THAN NEW.

If the feathers of old beds have become dirty, matted, or have lost their elasticity, by age or use, they should be emptied into a hogshead and washed in warm soap suds, agitated by means of a rake or garden hoe, and afterwards wrenched in clear water. They are then to be pressed dry by the hand, and put upon the floor of an empty well lighted room, and now and then whipped and stirred up; and when thoroughly dry put again into ticks. They will be found after this *better than new feathers*, because deprived of the oil which abounds in the latter.

Cousin Tabitha.

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* About thirty years ago, wagons crossed James' River on the ice. I think it might have been done in the winters of 1826—1827; but this fact, like the roasting of an ox on the Thames, only proves there was intense cold at a particular period We often, if we do not reach it, come near to the same degree, and it is therefore of little use in the estimate of the climate. There is as much doubt concerning the comparative temperature of ancient and modern Europe, as of our own country. Kirwan is very unsatisfactory. The argument from the clearing of the forests is of doubtful application.

LADIES' DEPARTMENT.

VILLAGE SKETCHES.

The following, which is from Miss Mitford's Village Sketches, is probably one of the best productions that ever flowed from her gifted pen.

I pique myself on knowing by sight, and by name, almost every man and boy in our parish, from eight years old to eighty—I cannot say quite so much for the women. They—the elder of them at least—are more within doors, more bidden. One does not meet them in the fields and highways; their duties are close house keepers, and they live under cover. The girls, to be sure, are often enough in sight, "true creatures of the element," basking in the sun, racing in the wind, rolling in the dust, dabbling in the water; hardier, dirtier, noisier, more sturdy defiers of heat, and cold, and wet, than boys themselves. One sees them quite often enough to know them; but then the little elves alter so much at every step of their approach to womanhood, that recognition becomes difficult, if not impossible. It is not merely growing as boys grow—it is positive, perplexing and perpetual change; a butterfly has not undergone more transmogrifications in its progress through this life, than a village belle in her arrival at the age of seventeen.

The first appearance of the little lass is something after the manner of a caterpillar, crawling and creeping upon the grass, set down to roll by some tired little nurse of an elder sister or mother, with her hands full. There it lies:—a fat, boneless, rosy piece of health, aspiring to the accomplishment of walking and talking; stretching its chubby limbs, scrambling and sprawling, laughing and roaring: there it sits in all the dignity of the baby, adorned in a pink checked frock, a blue spotted pinafore, and a little white cap, tolerably clean, and quite whole. One is forced to ask whether it be a boy or a girl; for these hardy country rogues are all alike, open eyed, and weather stained, and nothing fearing. There is no more mark of sex in the countenance than in the dress.

In the next stage, dirt encrusted enough to pass for the chrysalis, if it were not so unquiet, the gender remains equally uncertain. It is a fine, stout curly-pated creature of three or four, playing and rolling about, amongst grass or mud all day long; shouting, jumping, screeching—the happiest compound of noise and idleness, rags and rebellion, that ever trod the earth.

Then comes a sun burnt gipsey of six, beginning to grow tall and thin, and to find the cares of the world gathering about her, with pitcher in one hand, a mop in the other, and old straw bonnet of ambiguous shape, half hiding her tangled hair, a tattered stuff petticoat, once green, hanging below an equally tattered frock, once purple; her longing eyes fixed on a game of bass-ball at the corner of the green, till she reaches the cottage door, flings down the mop and pitcher, and darts off to her companions, quite regardless of the storm of scolding with which the mother follows her runaway steps.

So the world wags till ten; then the little damsel gets admission to the charity school, and trips mincingly thither every morning, dressed in the old fashioned blue gown, and tippet, and bib and apron of that primitive institution, looking demure as a nun, and as tidy; her thoughts fixed on button holes and spelling books—those ensigns of promotion; despising dirt and bass-ball, and all their joys.

Then at twelve, the little lass comes home again, uncapped, untipped, unschooled, brown as a berry, wild as a colt, busy as a bee—working in the fields, digging in the garden, frying rashers, boiling potatoes, shelling beans, darning stockings, nursing children, feeding pigs; all these employments, varied by occasional fits of romping and flirting, and idle play, according as the nacent coquetry, or the lurking love of sport happens to preponderate; merry, and pretty, and good with all her little faults. It would be well if a country girl could stand at thirteen. Then she is charming. But the clock will move forward, and at fourteen she gets a service in a neighbouring town; and her next appearance is in the perfection of the butterfly state, fluttering, glittering, inconstant, vain, the gayest and gaudiest insect that ever skipped over a village green. And this is the true progress of a rustic beauty; the average lot of our country girls, so they spring up, flourish, change, and disappear. Some indeed marry and fix among us and then ensues another set of changes, rather more gradual perhaps, but quite as sure, till grey hairs, wrinkles, and linsey-woolsey, wind up the picture.

SPORTING OLIO.

(From the Shooter's Companion.)

PROPORTIONS of POWDER and SHOT.

If you overload a gun with powder, the shot will scatter amazingly, and but few pellets will strike the object. If an insufficient quantity of powder is used, the shot will not be driven with the requisite force. But it is more than probable, that a trifling variation will be found in all guns; or, in other words, it will be a difficult matter to find two guns (though of the same length and caliber) which require precisely the same charge. The best method of ascertaining the proper load for the fowling-piece is, by firing at sheets of paper at given distances, and the progressive result will instruct the sportsman whether to increase or diminish the powder or shot, or both.—The general error in loading guns, I am inclined to think, is using too much powder, which not only scatters the shot prodigiously, but renders the recoil extremely unpleasant—it is quite a mistaken notion to suppose, that a distant object is better reached by a large load of powder, or that the force of the shot is thus increased; for, however paradoxical it may appear, it will be found, on experiment, that (to say nothing of the scattering of the shot, by which a small object will generally be missed) those pellets which strike the mark are not so strongly driven as when a reduced, but a correct, portion of powder is used. There is a certain proportion both of powder and shot with which a gun will shoot better than any other; these proportions are easily ascertainable in the manner just described; and, when ascertained, can be adopted

If percussion priming is made use of, very little more than half the common load of powder will answer the purpose.

Wadding.—Wadding punched from hat or common card will answer the purpose, but these articles are inferior to soft mill-board, about the thickness of three cards. If cork were so cut as to fit the calibre of the fowling-piece, there is little question but it would be superior to any other kind of wadding; but in this case the assistance of a regular cork cutter will be required, as I think, from some trials which I made, that cork cannot be punched. The thick soft mill-board is preferable to any which I have ever used; though an old hat will make excellent wadding.

MISCELLANEOUS.

OHIO OIL STONE.

The Lancaster Mechanics' Beneficial Society, in relation to the valuable product of which it treats,

REPORT.

The Committee appointed to examine the specimens of stone submitted to the Lancaster Mechanics' Beneficial society, by John P. Helfenstein, Esq. met agreeably to a previous arrangement, at the "Lancaster House," on Saturday the 7th instant, and after an interchange of sentiment on the subject, they adopted the following Report, which they now respectfully beg leave to submit:—

We are led to believe, from the specimens exhibited, that the quarry contains a variety in colour as well as in quality. There is a dark striped and mottled stone, which bears a striking analogy to that description of stone which occurs in the vicinity of Namar, (a city of the Netherlands.) This is peculiarly adapted to the sharpening of coarse edge tools, such as Cabinet Makers, &c. Its quality has been satisfactorily proven since the specimens were put into the hands of the committee and we unhesitatingly declare it to be much superior to any foreign stone we have ever seen, even those for which many of us have paid one dollar and twenty-five cents per pound, and we would further recommend it to the use of all the Mechanics in the United States. There is also a white, as well as a yellow grey stone, both of which partake of the stone, oil stone, Turkey stone, and whetstone, which abound in many parts of Germany; yet we believe them to be much superior to most of the foreign stone that is brought into our market, inasmuch as the silicious particles (a quantity of which exists in all good stone) contained in these, are much finer than in the foreign stone, which will give them an uniformity of character that must recommend them to a decided preference in whatever market they may be thrown. These stone answer the valuable purpose of Clearing Stone used by Curriers, as they not only cut down the tool rapidly to an edge, but they leave the edge smooth and sweet. We therefore unanimously agree in pronouncing the different specimens of the Ohio Oil Stone, that have come under our view, to possess a peculiar uniformity of quality that renders them decidedly preferable to the generality of the Turkey Oil Stone thrown into our market; and as advocates of Economy and the American system, would recommend them in their different capacities to the general use of the American people.

We cannot, however, in justice, close this report, without noticing the indefatigable and persevering industry and enterprize of our fellow citizen, *John P. Helfenstein, Esq.* to whom we are indebted for the introduction into use of this natural and highly valuable production of our soil, and, we trust that the public may be divested of those prejudices which improperly exist against the American (particularly the western) products, and that such will be the general use of these stone as to compensate him well for the lasting benefit he has conferred on the community.

JOHN NOBLE.
SAM. F. MACCRACKEN,
JOSEPH GRUBB,
ISAAC CHURCH,
WALTER McDONALD,
CHRISTIAN RESLLER,
Feb. 7, 1829. ROB'T R. CLASPILL,
Committee.

THE FARMER.

Baltimore, Friday, March 20, 1829.

Thursday, *March 12th*, 1829.

The Trustees of the Maryland Agricultural Society, met this day agreeably to appointment, at the residence of John B. Morris, Esq.

Present, ten members, the Treasurer, Corresponding and Recording Secretaries.

D. Mohon, Esq. of Paris, was elected an honorary member of the Society, and the Corresponding Secretary was instructed to forward him a diploma thereof, and at the same time, to express the high respect which this Society entertain for his valuable communications, and liberal sentiments upon the fine arts and sciences.

Resolved, That the next meeting of Trustees be held at the residence of James Carroll, Junr. on Thursday 26th March, when the Committee appointed to form a system of proceedings for the Society during the present year, are expected to make their report.

☞ An Economical Government.—There is an instance of economy and republican simplicity in the United States, which, we believe, is without a parallel in the world, either in ancient or modern times. We allude to the state of Vermont. The whole expense of the government of that state amounts to only from thirty-five to fifty thousand dollars annually. There are but few salary offices, and their salaries are small. The governor gets $750 a year; five judges of the supreme court receives $1175 each; the secretary of state $450; the treasurer $400; and a few other still smaller amounting to about $800 in the whole. These comprise all the salary offices. The other executive and civil officers of the state have no other compensation than their official fees. The expense of the legislature is annually between ten and fifteen thousand dollars, the daily pay of the members being only $1.50. The compensation of the Lieutenant Governor, is four dollars per diem, during the session of the legislature, which is included in the expense of the legislature stated above. The state is entirely free from debt, and has no other resources than a direct tax, some incidental receipts of small amount excepted. Even in pursuing this system of rigid economy, the state is not unmindful of the advantages of general education; accordingly it has directed the sale of some public lands. and the proceeds, together with those of a tax on lottery agents, pedlars, and banks, are to constitute a fund for the support of public schools. There are many "bodies politic," that might imitate these "simple virtues" with becoming gracefulness.

The late session of the Maryland Legislature has probably cost the state not less than $40,000, and can any body tell to what beneficial end? What laws have been passed to diminish the taxes or to improve the condition of the farmers or planters, or any other class of the people? If the delegation from each county were reduced to *two* members, and their per diem to $2, the post would cease to be sought by unqualified men from grossly mercenary motives. The legislature would consist of more disinterested men, and the sessions would not, as they ought not, exceed half their present term. As it is, by a common and almost universal feeling, they spin out the session from week to week for the sake of pocketing their $3 per day, *clear money* out of $4. There are bright men among them who form bright exceptions to these remarks; but their enlightened views and public spirit, in their course of public duty, are obstructed and hindered by the mass, who, destitute of the virtue of ambition, only know that four times seven make $28, and that each week they can prolong the session, adds that much to their per diem at the end of it, and who are they that "*pay the piper*," not "they that dance;" no they are the *farmers and planters*, and so let them suffer until they turn their attention with one accord to the means of rectifying gross and extensive abuses within their reach.

☞ Quinar, or Chenopodium Quinoa.—Our valued correspondent who furnished us an article on this subject for our last number, writes us under date of March 6, as follows:—"After writing to you on the subject of the Quinar, I boiled some of the seed I received from you (for I did not sow it all) and the "spiral fibre" noticed by Don Ulloa very soon developed itself. It is therefore beyond doubt that your *Quinar* is the *Chenopodium Quinoa*, than which I do not know that states which do not grow rice could obtain a more valuable exotic.—It is finer than rice, as you may convince yourself, by having a dish of it cooked, provided you have any of the seed on hand, so that by all means you must endeavour to procure some fresher seed *and let me have some*, of which I will promise to give you an accurate report. Can you learn from any of your friends who have visited that country what mode is used in South America for cultivating the *Quinoa?* What soil, &c. &c."

☞ Grape Vines.—It is apprehended that the very severe weather of the past winter, has done essential injury to the grape vines. A gentleman who has a pretty large variety in the vicinity of Baltimore, informs us, that the vines of several have been killed to the ground, particularly the Sweet water and Sultana. They had not been covered, or protected in any way from the frost.

☞ A much respected and skilful Horticulturist and Entomologist wishes to know the author of a letter on the subject of the *Curculio*, published in No. 50, vol. 9, of the Farmer, signed "A Subscriber"—and for her satisfaction, we will take it as a favour if the author will make himself known to us.

☞ Baltimore Market.—The price of Howard street flour has receded to $7.25, at which considerable sales have been made. There are few purchases from wagons, as the owners prefer storing, and wait for better prices.

Latest Foreign News.

By the London Packet at Boston, London dates have been received to the 27th January. The Duke of Northumberland had been appointed to the Lord Lieutenancy of Ireland. Advices from Odessa, are to the 3d of January. The winter was unusually severe. The Grand Vizier, and the whole army were (Dec. 25) between Aidos and Shumla, in cantonments, the rigor of the winter admitting of no active operations. Tahir Pacha, who commanded part of the Turkish fleet at the battle of Navarin, had received orders to march part of their forces assembling at Adrianople to the Danube, whither Tchahan Oglore had proceeded before with the Asiatic cavalry. Large reinforcements had been sent to Erzerum. Hussein Pacha has been succeeded at Choumla by Halel Pacha, and was on his way to take the command of the camp at Adrianople. The Sultan was still at Ramis Tchiflick. The most urgent commands continue to be sent for armaments to Asia; and the Porte will make a great display of force in the spring. Down to the 26th Dec. the greatest tranquility reigned at Constantinople. The roads on the frontiers of Turkey were said to be covered with snow to the depth of from four to five feet.

Portugal.—Advices from Portugal have been received at Philadelphia to the 1st of February. Lisbon was in a very unsettled state, and a revolution daily expected; the prisons were all full, and many prison ships lying in the Tagus, with prisoners, bound for Madeira and Oporto. The first division of Portuguese, which left Plymouth on the 6th January, had safely landed at Terceira, one of the Western Islands. Several men of war were fitting out at Lisbon, supposed to be for an expedition against that Island. It was expected that Don Pedro would send a squadron to blockade the port of Lisbon, and that the Portuguese fleet would join them, as they had received no pay for six months, several of the crews of those lying in the Tagus had mutinied, and were afterwards sent to prison. Press gangs and an armed police were continually parading the streets.

London Markets.—Jan. 27.—Tobacco—In consequence of a letter from the Chancellor of the Exchequer stating his intention of laying a duty of 3d per lb. on stemmed, after April 5, an extensive speculation has taken place here and Liverpool, where it was first known. The opinion of the trade is that the measure will not be adopted as it will encourage monopoly and finally hurt the revenue. The market is in a state of agitation. Indigo—The sale is expected to conclude to-morrow, proceeds very heavily and a fall is anticipated, many chests had been withdrawn. Cotton—Market inactive here and Liverpool; prices again 1-8 lower.

London Corn Exchange, Jan. 26.—Attempts have been made by the consumers to obtain wheat lower than last market day, from an expectation that the navigation will be speedily re-opened; quotations nominally as in our last: trade rather dull. No alteration in the price of Flour.

Prices Current in Boston, March 13.

Apples, best, bbl. $.3.00 a 3.75. *Beans*, white, bushel 1.00 a 1.37. *Beef*, mess, bbl. 10.00 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 7.50 a 8.00. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 8.75 a 9.00; Genesee, 8.75 a 9.00; Rye, best, —. *Grain*, Corn, bush. .63 a 65; Rye, .75 a .80; Barley .67; Oats .37 a .40. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 16.00 a 16.50; Navy, mess, 13.00 a 13.25; Cargo, No. 1. 13.00 a 13.25. *Seeds*, Herd's Grass, per bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 4 00; Rye Grass 4.00; Tall Meadow Oats Grass 4.00; Red Top 1.00; Lucerne, lb. .50; White Honeysuckle Clover, .50; Red do. Northern, .7 a .9; French Sugar Beet 1.50; Mangel Wurzel 1.50. *Wool*, Merino, full blood, washed, .35 a .42; do. do. unwashed, .22 a .26; do. three-fourths washed, .30 *a* .35, do. half and quarter washed, .28 a .33; Native, washed .25 a .28; Pulled, Lambs', 1st sort, .37 a .41; do. do. 2d sort, .25 a .30; do. do. spinning, 1st sort. .30 a .33.

Prices Current in New York, March 14.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .10 a .12; Upland .8½ a .10; Alabama .9½ a 10½. *Cotton Bagging*, Hemp .19 a .21; Flax .15 a .18. *Flax*, American .8 a .9¾. *Flaxseed*, rough, tierce $14.00; clean 12.00. *Flour*, New York, 7.75; Canal 7.87½ a 8.25; Baltimore wharf, 7.67½; Howard street 8.12½; Richmond city mills 7.87½ a 8.00; country 7.62½; Alexandria and Fredericksburg 7.62½ a 7.75; Petersburg 7 62½. Rye Flour 4 00; Indian Meal, per barrel 2.87½ a 3.00; per hhd. 15.00. *Grain*, Wheat, North River ——; Virginia ——; North Carolina 1.62 a 1.64; Rye .70 a .72; Corn, Northern .54 a .56; Southern .40 a 46; Barley .55; Oats .34 a .38, Peas, white dry 7 bush. 4.00; Beans, 7 bush. 8.00 a 9.00. *Provisions*, Beef, mess 9.00 a 9.50; prime 7.00 a 7.50; cargo 5.50; Butter, N. York, 12½ a 16; shipping, .8 a .11; Lard, .6 a .6½; Pork, mess 11.75 a 12.50; prime 9.75 a 10.00; cargo 8.50 a 8.75; Hams, Virginia .9 a .10; Northern .9 a .10. *Rice* .3½ a .3½; Whiskey, rye .24½ a .25; Cider Brandy .30 a .38. *Tobacco*, Virginia .3½ a .6½; Kentucky .3½ a .6½; Ohio .5 a .12½; *Wool*, Merino, American fleece .32 a .38; Pulled, 1st qual. .32 a .35; 2d qual. .25 a .27; 3d qual. .20 a .23; Lambs, 1st qual. .40 a .42.

Prices Current in Philadelphia, March 17.

Bees-wax, yellow .23 a .24; *Beans*, bushel $1.25 a 1.50; *Beef*, mess 10 a 11, prime 9 a 9.50, cargo 7; *Butter*, No. 1, .8 a .9, No. 2, .5 a .6; *Cotton*, New Orleans .11 a .13, Upland .9 a .11, Tennessee .9 a .11, Alabama .9 a 11; *Feathers*, Southern .33 a .34, Western .31 a .33; *Flax* .5 a .8½; *Flour*, sup. 7.75 a 7.87½, fine 7.50, Rye 3.75; Corn meal, hhds. 14, bls. 2.75; *Flaxseed*, cask 11.25, bushel 1.50; ***Grain***, Wheat 1.50 a 1.60, Rye .60 a .70, Corn l. c. white .45 a .47, l. c. yellow .46 a .49, u. c. round .52 a .54, Oats .25 a .33, Barley, Pa. .45 a .50 Eastern .55 a .58; black eyed Peas .40 a .50; *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western ——; *Hemp*, Kentucky ——; *Lard*, .7 a .6½; *Oil*, linseed .85; *Pork*, mess 13 a 13.50, prime 12, cargo 10.25 a 10.50; *Rice*, 3.50 a 3.75; *Tobacco*, Kentucky .3 a .6½, Virginia .3½ a .5½; *Wool*, common washed lb. .28 a .30, half blood .30 a .33, three quarters blood .33 a .35, full blood .36 a .40, unwashed, generally 10 cents less, according to quality.

SERAB.

The imported blood horse Serab, will stand the ensuing season at the stable of John Snedeker, near the Union Race Course, Long Island.

This horse was foaled the property of Mr. Batson, in England, in 1821, and at three years old was sold to the Earl of Darlington, for the sum of 3000 guineas, from whom he was purchased the last year by his present owner, Admiral Sir Isaac Coffin, who deeming him one of the best stallions in England, sent him out for the benefit of his native country.

Serab proved himself a first rate runner upon the English turf, (as will appear by the statement hereafter given of his performances) never broke down, and is now in perfect health and soundness. His blood, as will be seen by the following pedigree, is of the best in all its strains; and in point of size, colour, action, and in elegance of proportion, he was in England, admitted to be one of the first horses in that country; and here, the subscriber will challenge competition.

Serab is sixteen hands high, large over the girth, muscular in all of his proportions, large in bone, clean in his limbs, on which there is not a windgall or blemish, is most excellent in his action, *trotting* neatly and clearly off the ground, as well as moving correctly in his other paces. His colour is a dark bay, without any white, and his coat is very beautiful.

He was got by *Phantom*, out of *Jessy* by *Totteridge;* her dam *Cracker* by *Highflyer*, out of *Nutcracker* by *Matchem; Regulus,—Crab,—Childers,—Basto* by the *Byerly Turk.*

Phantom by *Walton,*—dam *Julia* by *Whiskey*, out of *Young Giantess* by *Diomed.*

Walton was by *Sir Peter Teazle*, out of *Arethusa* by *Dungannon*, dam by *Prophet* out of *Virago*, (*Saltram's* dam) by *Snap,—Regulus* &c.

Sir Peter was by *Highflyer*, (a son of *King Herod*,) out of a sister to *Middlesex*, (*Sincerity's* dam,) by *Snap*, &c. Thus it will be seen that the blood of Serab is derived directly from the most superior horses ever produced in England.

Performances.

1824.—He started and won at Newmarket, Spring meeting, in May, (then 3 years old) the *Newmarket stakes* of 50 guineas each, 25 subscribers, ditch mile, carrying 119 pounds, beating Pucelle, Dragoman, Presentiment and Rebecca.—*Won Easily.*

At Epsom, in June same year, he started for the Derby stakes, of 50 guineas each, 58 subscribers, one mile and a half, carrying 119 pounds, and was unsuccessful. *Cedric* the *winner.*

At Doncaster, in September same year, he started, (but was pulled up immediately, not getting a fair start,) for the St. Leger stakes of 25 guineas each, 77 subscribers.

1825.—At Newmarket, Craven meeting, April, he *won* the Port stakes of 100 sovereigns each, 7 subscribers, carrying 119 pounds, the two middle miles, Beacon course, beating *Pucelle* and *Reformer.*

At the Spring meeting, 21st of April, he *won* the Handicap stakes of 100 sovereigns each, six subscribers, one mile and a quarter, across the flat,) carrying 119 pounds, beating *Silkworm*, (100 pounds,) *Hajji Baba*, (104 pounds,) and *Egyptian*, (103 pounds.)

At Ascot Heath in May same year, he started for the *King's Plate*, carrying 147 pounds, four miles, and was beaten by *Cydnus*—ten to one on *Serab* at starting.

The *same day* he started for the *Oatland stakes*, two and a half miles, and was beaten by *Pucelle*, whom he had twice beaten before, as also by *Hajji Baba*, whom he had beaten also at the Spring meeting.

1826.—At York, August meeting, Lord Darlington's *Serab*, 5 years old, *won* 100 guineas given by the King, four miles, carrying 161 pounds, beating the famous horses *Lottery*, *Leadstone* and *Dramatist*. A very severe race, and won by a length: time 7 minutes 58 seconds.

1827.—At Stockton, August 16th, *Serab* contended in a sweepstakes of 10 guineas each, for all ages, two miles, six subscribers, carrying 126 pounds, and ran second to *Crafty*, carrying 112 pounds, and beating Mr. Watts' filly by Magistrate out of Manuella.

The next day, August 17th, at the same place, *Serab* ran for the gold cup, value 100 sovereigns, eight subscribers, at 10 sovereigns each, with 20 added for horses of all ages, three miles, and *won* the same, carrying 126 pounds; beating *Canteen* (126 pounds,) *Magistrate* (91 pounds,) and Mr. Watts' filly out of Manuella, (91 pounds.) A very well contested race.

The above are all the races of Serab. After this period he never started again, but was sold to Admiral Coffin, to go to America

Gentlemen breeders are respectfully invited to examine this horse, and they are informed he will cover at the price of $30 and $1 to the groom for each mare for the season. Good pasturage will be provided for mares, and every attention paid to them; but escapes and accidents at the risk of the owners of the same.

For any further particulars application to be made to Charles Henry Hall, of New York, or John Snedeker, Union Race Course. THOMAS HARRISON.

Jamaica, Long Island, March 1829.

LINNÆAN BOTANIC GARDEN

And Nurseries—Fruit and Ornamental Trees.

WM. PRINCE, proprietor of this establishment, has just published new catalogues of his collection, so well known for its immense extent, and for the accuracy with which every department is conducted. The Fruit catalogue comprises as follows:

Apples, 287 kinds; Pears, 290; Cherries, 98; Plums, 183; Peaches, 197; Apricots, 33; Nectarines, 29; Almonds, 14; Mulberries, 22; Quinces, 10; Currants, 21; Raspberries, 16; Gooseberries, 50; Walnuts, 16; Filberts, 11; Strawberries, 40; Grapes, 407; Figs, 47; Oranges and Lemons, 43—and in proportion of other fruits.

The department of Ornamental Trees, Shrubs and Plants is exceedingly rich and extensive, and contains double the number contained in any previous catalogue, and includes 600 of the most splendid varieties of Roses, *with short descriptions. The prices have also been greatly reduced, in consequence of the rapid increase by propagation.*

Grape Vines of the following very choice kinds are offered to the public *by the hundred, at 25 cents*, or at $1.50 to 6.00 per dozen. *Strong vines, three years old*—White Burgundy, Grey Burgundy, and Black Burgundy, White Imperial Tokay, Riesling or Claret of Limoux, Petit Rauschling, Kniperlé, Black Orleans, Teinturier, Large Morocco, St. Valentine. Also the following, of one and two years growth, at the same low rate: Rose Burgundy, new Black Cluster, Black Sweet Water, Bordeaux Purple and various other kinds.

He has also for sale 2000 fine vines of the Isabella Grape, at 37½ cents each; and several hundred plants of Wilmot's superb Strawberry.

☞ Catalogues may be obtained, *gratis*, of Gideon B. Smith, agent for the proprietor, at the office of the American Farmer, Baltimore, and orders left with him will meet attention.

SAPLING CLOVER AND ORCHARD GRASS SEED.

A small parcel of Sapling clover seed, just received and for sale by the subscribers; also on hand, a good supply of Orchard Grass, Timothy, Herds Grass, Lucerne and White Clover, Spring rye, Garden Seeds, White Mulberry Seed imported from France; specimens of which may be seen growing at their store. A general assortment of Agricultural Implements.

SINCLAIR & MOORE,
Pratt street wharf.

Baltimore, March 13.

WHITE MULBERRY TREES.

For sale, several thousand White Mulberry Trees, two and three years old, by J. Terhoven, on the Point road, four and half miles from Philadelphia, near the village of Richmond.

Letters, *post paid*, sent to the Kensington Post Office, Philadelphia county, will be attended to. The price of the trees is from 14 to 20 dollars per hundred.

Philadelphia, March 13, 1829.

ALMANAC.

1829. MARCH.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 21	5	59	6	1	12	2	7	20
Sunday,........ 22	5	58	6	2	12	4	8	18
Monday,........ 23	5	56	6	4	12	8	9	16
Tuesday,....... 24	5	55	6	5	12	10	10	15
Wednesday,.. 25	5	54	6	6	12	12	11	13
Thursday,..... 26	5	53	6	7	12	14	morn.	
Friday,......... 27	5	51	6	9	12	18	0	9

Last Quarter, 28th, 2 h. 12 m. Mg.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.
No. 4, Bowly's wharf.

Tobacco.—Maryland, ground leaf, $5.00 a 10.00—seconds, ordinary, 3.50 a 4.50—red, 4.50 a 6.50—fine red, 6.00 a 8.00, for wrapping—Ohio, common, 5.00 a 8.50—good red, 6.00 a 8.00—fine yellow, 10 00 a 20.00—Rappahannock, 2.50 a 3.50—Kentucky, common 3.50 a 5.00—wrapping, 4.00 a 6.00.

Flour—best white wheat family, $9.00—superfine Howard street, (sales,) 7 a 7.50; city mills, 6.75 a 7; Susquehanna 7 a 7.25—Corn Meal, bbl. 2.50 —Grain, best red wheat, 1.50 a 1.60—best white do. 1.60 a 1.70—ord. to good, 1.30 a 1.50—Corn, .38 a .40—Rye, .50 a .55—Oats, .26 a .28—Beans, 1.00 a 1.25—Peas, .55 a .60—Clover seed, 4.25 a 4.50—Timothy, 2 a 2.50—Orchard Grass, 2 a 2.50—Herd's, .75 a 1.00—Lucerne 37½ a .50 lb.—Barley, .55 a 60—Flaxseed, 1.00—Cotton, Virg. .8½ a .10—Lou. .11 a .12—Alabama, .10 a .11 Mississippi .11 a .13—North Carolina, .10 a .11—Georgia, .9 a .12—Whiskey, hhds 1st pf. .24—in bbls. .25 a 25½—Wool, common, unwashed, lb. .15 a .16—washed, .18 a .20—crossed, .20 a .22—three-quarter, .25 a .30—full do. .30 a .50, accord'g to qual —Hemp, Russia, ton, $225 a 230; Country, dew-rotted, 136 a 140—water-rotted, 170 a 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 a 6.50—Herrings, No. 1, bbl. 3.25; No. 2, 2.87½ a 3—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Baltimore cured, new, .9½ a .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 a .8—Pork, 4.50 a 5—Feathers, .28 a 29—Plaster Paris, cargo price per ton, $5, ground, 1.25 bbl.; grass fed prime Beef, 3.50 a 5.00.

Marketing.—Apples, bush. 2.50 a 3.00; Pheasants, pair, .75; Squabs, 18¾; Rabbits, .12½; Turkies, each, 1.12½ a 1.25; Butter, lb. .25 a 37½; Eggs, .12½ a .15; Potatoes, Irish, bushel .50; Fowls, per dozen 3 a 3.75; Ducks, doz. 3.00 a 3.50; Beef, prime pieces, lb. .8 a .10; Veal, .8; Mutton, .6 a .7; Pork, .6; young Pigs, dressed, .75 a .87½; Sausages, lb. .8; Onions, bush. .50; Beets, bush. 1.00; Turnips, bush. .25; Partridges, .6¼ each; Canvassback Ducks, pair, .75, Terrapins, 4.00 a 4.50 per doz. Pork, 5.50 a 6.00 cwt.; prime Beef, on the hoof, 5.50 a 6.00.

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AGRICULTURE.

(From the Southern Agriculturist.)

INDIGO.

On the Cultivation and Preparation of Indigo; by General Floyd, of Georgia.

Observations by the Editor.—We are enabled, by the kindness of our zealous and truly patriotic correspondent, Thomas Spalding, Esquire, to lay before our readers the following instructions on the cultivation of Indigo; as practised in Georgia, by the old Indigo planters. They are from the pen of Gen. Floyd, who is the last gentleman who cultivated it extensively in our sister state. We feel so assured that this able paper will be found completely to supply all that is wanting to restore this culture to the Southern States, that we confidently recommend it to those who would plant *"the weed."*

It is a crop that will pay well, we are satisfied, in these times, if *the quality is attended to*, and therefore highly deserving the notice of all southern planters. Mr. Spalding thinks it could be combined to advantage with a sugar crop, and as the first gathering ought to commence the latter end of June or beginning of July, and as, in case of necessity, the system of preparing *the dry leaf*, can be resorted to, there can be no doubt he is correct.

We shall only give at present the mode of preparing the land, the method of planting and tending the crop, reserving for a future number, the interesting description of the preparation of the dye: the mode of conducting which, is so complete, that no one of common intelligence will find a difficulty in a process so simple. In addition to this able paper from Georgia, we have received from Governor Williams, of our own state, what we have long inquired for, and hunted after in vain. "Instructions for the preparation of the same plant as practised in *Bengal*," communicated to him by an Indigo planter, who realized a fortune there, by planting and manufacturing the very superior quality of dye, imported from thence. This interesting article shall be laid before our readers immediately after Gen. Floyd's instructions are completed.

N. B. We had noticed Mr. Spalding's observations, that from his recollections the culture of Indigo did not appear to him to be an unhealthy one, and we would confirm this as far as we can judge from a perusal of the instructions: provided drains are made to carry to a distance, the useless liquor discharged daily from the beater. If this is allowed to accumulate and form ponds or puddles, pestilence will surely follow. J. G.

Lands the best adapted to the culture of Corn, Cotton, or Upland Sugar Cane, are considered as being equally suited to the growth of the Indigo Weed, from which the dye is produced.

The preparation of the land, the sowing, and early hoeings, will be found more tedious, and require more care, than any other article of general cultivation. It will be readily perceived, that from seed, so small, and the pulp so strongly enveloped by a hard crest, that care in planting and favourable seasons are material to its germination, and early growth. It is necessary therefore, that the land should be well broken, levelled, and raked, to free it from stubble or trash of any kind, previous to forming the beds, on which the Indigo seed is to be planted. These beds are usually made from eight feet eight inches to ten feet six inches wide, giving from ten to twelve beds to the task, as the fancy of the planter, or the situation of the land, may dictate. The space between the beds, need be no more than to form the beds, and afford a receptacle for the grass, &c., taken from the plant, and to draw from it also the water produced by much rain.

The earth taken from the space between the beds,* should be thrown towards the middle, so as when adjusted, to afford a little descent towards the ditches, in order to prevent water from lodging about the plants.

Method of Planting.—Trench the beds across, about the distance apart observed in rice, and the seed drilled and covered, as you would turnips, flax, or wheat, allowing one quart of seed to the task, or one bushel to eight acres.

The time for planting about the same as cotton in similar situations, as to soil and seasons; which should be considered, with a view to establish with the greatest certainty the vegetation and early growth of a weed produced from seed so small, and of so hard a texture, as to require the aid of moisture to bring it up. Remembering at the same time, its susceptibility to the effects of frost.

Two trenchers, one sower, and two coverers, (*with rakes or boards handled*) will plant two acres per day. A hand will tend five acres of land. Every five hands will require one set of vats; which will be described hereafter; of these five hands, two should be able bodied men, for the purpose of reaping, pumping, beating, and handling the weed, or *dye*, in its crude state.

In the cultivation of Indigo, much depends on the fertility and preparation of the soil, as well as on favourable seasons, and the quality, or age of the seed: in getting the crop well set; afterwards the *care*, with which the early weedings are attended, (as but little can be done with the hoe) in freeing plants so small, from young or small grass, which is important to promote the growth of the weed: for the product depends much on the early commencement of manufacturing the dye from *the weed*—because early cutting will give reasonable calculation on the second, and perhaps a third cutting, from new growths from the stubble, if the winter or frost happens to be late in its effects on vegetable matter. After the weed gets to be four or five inches high, there is but little trouble in tending it, for as the roots penetrate as far below the surface, as the stalk rises above it, it will then bear the drought. The grass, (by the time it acquires that height,) will be easily kept under with the hoe, no bedding or thinning being required. If the seasons and soil promote the growth of the weed, it will be fit for cutting about the last of June, or beginning of July. When the weed arrives at maturity, or in other words, is fit for reaping, the leaves become thicker than in the growing state, lose their pliability, and will break by doubling them together; at this period they are supposed to contain all that they are capable of yielding of the dyeing matter. It is therefore necessary to commence cutting on the approach to this state, which the plant does not retain long before the leaves begin to lose their fullness, and are apt to fall from the stalk. One of the perplexing evils incident to it, and much hastened by the extremes of dry or wet weather, particularly the last. *For these reasons the planting should be so arranged, as to enable you to cut it in the same progression with the order of its age.*

One task, or one fourth of an acre of good weed, will fill a vat of twelve feet square by thirty inches deep. *Provided you do not plant provisions,*† you will plant twenty-five acres for every set of vats. And supposing your weed will, upon the average, give six vats to every two acres, (which is a more safe calculation) you will then require three months to get through the first and second cuttings. Each vat should produce from twenty to thirty weight of merchantable dye, which however, depends in a great measure on the congeniality of soil, water, skill and management.

(*To be continued*)

ON MANURING LAND.

Answer to Inquiries.

Eastern Shore of Maryland,
Feb. 22, 1829.

Mr. Skinner:

As is my usual habit, on looking over your valuable paper of February 13, I find one of your subscribers, residing in Gordon's Dale, Fauquier county, Va., making some inquiries relative to the disposition of my manure. Ready and willing, at all times, to give any information I may possess on any subject, and particularly on agriculture, (on the prosperity of which the nation in reality depends,) I shall in a concise manner reply to such inquiries as have been proposed.

First. My manure is not all used upon one farm.

Secondly. The greater part of my manure is marl, of a very superior quality; added to which I never suffer an opportunity to pass, by which I can make a load of compost, by drawing into my farm and stable yards all kinds of rich dirt, pine shatters, oak leaves, weeds, *corn stalks* (*which are valuable*,) and marl.

Thirdly. My marl carts, which are made small, particularly for the purpose, are put in motion immediately after my wheat crop is cut and secured, and continue to run annually until I again commence my harvest, (weather permitting,) with the exception of some short intermissions unavoidable.

Fourthly. I consider two carts are always to be employed as above, but sometimes three and sometimes four, varying agreeably to distance, always keeping one man at the marl bank to load, and one boy to drive and discharge the marl, who returns by the time the other cart is loaded; but if three carts run, I apply another driver who is ten years old, to take charge of the intermediate cart. On meeting the cart in possession of the boy who discharges the load, he resigns his and returns with the empty one to the bank, and the other boy proceeds on to the place of deposite. Should the distance require four carts, (which was the case last summer,) I offer another driver eight years of age, who takes the cart from the bank, meets the second driver, and returns to the bank; the second driver proceeds with the load until he meets the third returning with the empty one, and resigns his for the empty one to the third driver, who proceeds to the place of deposite, he being a lad about fourteen or fifteen years of age and able to tilt the cart. (I have four other persons on the farm to perform the other duties of it.) Thus, you see, I have three carts running and one at the bank loading. I have been thus particular as to my drivers, to show the requisite economy in farming, and to convince the slave holders of the erroneous idea prevailing that such boys are not able to work, but suffered to roam at large on the playful green. And here permit me to say, these carts are drawn by oxen, and never fed on corn or any kind of grain, but on corn caps, blades and hay in the winter, and grass through the summer.

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* These alleys to be about twelve inches wide and shallow. [We would suggest two feet as not too much for the width.—*Ed. So. Ag.*]

† It was formerly the custom, to plant three and a half or four acres of Indigo, and one, or one and a half acres of provisions to the hand; by this rule, five hands (*the necessary gang to each set of vats*) will plant from seventeen and a half to twenty acres. For example, suppose four acres to the hand, and allow three vats of weed to the acre, will give to twenty acres, sixty vats, each producing twenty pounds of merchantable dye, this will yield from the first cutting twelve hundred weight, and to each hand two hundred and forty. Without trespassing on the Sabbath, you can make but five vats per week, twenty per month and of course it will require three months to get through the first cutting: which brings you to that season of the year, less congenial to the manufacture of the article; consequently the quality of the after cuttings is seldom as good, as that of the first: but their product, ought to be sufficient to cover all expenses. I consider this, a safe calculation with ordinary chances.

Fifthly. I have my marl dropped in loads, 25 feet apart each way, and never spread it until I plough the intermediate space between the loads. I then spread the marl and plough the place which the marl occupied. By this means my marl is not covered too deep, that its action may have more power.

Sixthly. My marl is used mostly on wheat and corn crops, but I believe it is beneficial to all. I am inclined to believe a stiff clay soil is the best to apply it to, as it will tend to correct the acid which is usually conceived to be in such soils; but have found it to act well on light (though not sandy,) soils.

In answering the seventh inquiry, viz: "In what state he prefers using it?" allow me to say, that the farm on which I have the marl, I have divided into seven fields. I cultivate two in corn, two in wheat, annually. One of the corn fields is put in wheat, the other left as a stock field, which is considered my wheat fallow the fall following; after supplying the corn field, which is to be put down in wheat, with all the marl I can until planting, from that time until the fall I bestow all my marl on the stock or fallow field, which nearly covers it over. After the marl is spread, and the ground ploughed as before described, it is then cross-ploughed, drag-harrowed, rolled and laid off in lands for seeding. I then commence *re-manuring* it with compost prepared from the remnant of my winter forage, put into a pen in some convenient part of the field early in the spring, on which I confine my cattle at night during the summer and fall, taking every advantage to add to it all kinds of rich dirt, pine shatters, salt marsh mud, marl, &c. Having taken the precaution during the spring to deposite such manure as is made from winter feeding on the same field, by the side of a ditch, longitudinally, a space of about six feet being ploughed to receive it, the bank of which is then thrown over the manure, which protects it from the sun, and adds to the bulk without drawing dirt for the purpose; it also, when removed, gives a gentle slope to convey the water into the ditch, which is all-important. Just before seeding, I summon all hands and carts to put out this compost, which is dropped, each load, 25 feet apart each way, equal to 70 loads to the acre; it is then spread before my seeding ploughs, and ploughed in with my wheat, which gives a quick action to the marl: from which management I have received fine crops of straw fur two or three years past, but not an exuberance of grain, owing to the rust, which has unfortunately destroyed our grain. Those fields I annually seed in clover about the first of March. Thus I have two in wheat, two in corn, two in clover, viz: one to cut and one to pasture on; also the stock field, part of which I put in rye and oats, leaving as much unoccupied as I can conveniently manure from the time I cease manuring my corn field until harvest; then manure the part from whence I take my rye and oats. The farm on which I reside has no marl; I have therefore to make compost, as described above. I have it divided into four fields; cultivate only one in corn, on which I apply all my manure, some in the furrow, some in the hill, and some broad cast in the fall after I take off the stock, and plough it in with the wheat, as previously described. As I put down that field in wheat and corn, *and no fallow*, in the spring I put clover on it. I generally use two carts. My force is three men and three small boys. When I commenced farming, compost was made in the small way, but abandoned it, and drew out my long or unrotted manure, (not having then discovered marl,) spread it, and ploughed it with my corn cultivator, as recommended by Col. Taylor; but have again returned to compost. At one time I ploughed down clover for wheat; but my land soon became filled with garlick, which caused me to relinquish that plan.

Eighthly. I am convinced, from the experience of a few years past, that I am now pursuing the most profitable disposition of my manure, as described on the marl farm; and so confident am I of the utility of marl, that I have it in contemplation to purchase two arks at Port Deposit, in the spring, to convey it by water to my place of residence.

Ninthly, and lastly, I top dress none, except a little on timothy.

I have thus endeavoured to answer all the inquiries made by your Virginia subscriber; and should any good be derived from the investigation, by which the falling state of agriculture may be advanced, I shall feel much gratified. It is with no uncommon degree of pleasure I daily witness the improvement of the lands and stock on some parts of this shore, which I attribute to your indefatigable industry, and the agricultural societies.

An Eastern Shore Farmer.

OBSERVATIONS ON SOME SUBJECTS OF CULTIVATION IN LONG ISLAND

J. S. Skinner, Esq.

Sir,—Having observed that in different places the ploughings were not of a sufficient depth, I spoke about it to a gentleman of Bedford, L. I., and I asked him to try the experiment on one acre only, and to begin by ploughing one inch deeper than before; for if it was ploughed very deep at once, the ground would become sterile for some years, until the influence of the atmosphere, manuring, and other subsequent ploughings, would have mixed the soils together. This gentleman told me since, that he had succeeded beyond his expectations; his corn was visibly larger and stronger than that of the other side, which was ploughed in the old manner. I do not doubt but that his example will have much influence. So the ploughings must have, by and bye, from eight to ten inches depth, and must be done by gradual deepening of one inch each year. This ground, gradually ploughed, would preserve some moisture very beneficial in dry summers. The soil having been able to concentrate a much greater degree of humidity, and in wet seasons the ground being more porous, the water would not remain on the surface and rot the roots of the crops.

I have taken notice that the furrows of declivitous lands are very often made in the direction of the descent, instead of making them transversely, or crosswise, in such a manner as to preserve as much ground and manure as possible on the top, and prevent them from coming down by heavy rains. Corn and potatoes ought, therefore, to be planted and kept in transverse lines, following the same principle.

The manures which are brought before hand upon lands which will be sown this spring, are most generally spread out on the ground without being heaped together. The more room they take, the more the atmosphere and rains take from them their nutritive parts. They might be put together in the form of a cone, which could be covered with ground; or if the ground was frozen too hard, they could be covered with mats, very easily made by tying straw between small poles six or eight feet long, which, being put away afterwards in a dry place, will be good for another year. In this manner, none of the fertilizing salts can escape. But speaking of this interesting matter, I must say that I am astonished why no composts are made, which is a means of trebling the mass of manures, without occasioning any other expense than that of mixing earth with manure by layers one above the other, and by adding all kinds of vegetables, leaves, grass sods, &c.; and instead of leaving the dung to dry and be spoiled by the scratching of fowls in the yard, it should be successively carried, when it comes out of the stables, on the fields, where it is to be used for the fall or the spring. For this purpose a small corner could be left, where it would be deposited. It would be convenient, if possible, to make a few heaps of earth ready for mixing by layers with the manures; layers of new dung one foot thick, and those of earth from three to four inches; if made of old manure, for one foot thick, six or seven inches of earth. The heap could be made in a circular or square manner, and put some earth around it, to prevent the access of the atmosphere to the layers of manure. It will be objected that this would be an increase of labour; but it would not be lost; for what is given to the soil will be repaid an hundred fold.

Next year I will be able to give the result produced by Jonathan Thompson, Esq., collector of the New York custom-house, who, on his large farm at Islip, L. I., and at my request, had the goodness last year to get sown and ploughed three successive crops of buckwheat in blossom. He has great hopes of the success of this experiment, the soil being entirely changed, and seeming to contain a quantity of humus, and all that is necessary for having a fine crop this year. I hope his example will be followed in places at some distance from towns. This sowing three times only took nine bushels of buckwheat seeds per acre, which is a very cheap manure.

Respectfully, yours,

ANDREW PARMENTIER.

Horticultural and Botanical Garden,
Brooklyn, L. I., March 10, 1829.

In your 48th number, where you give insertion to my letter about the *Ptelia Trifoliata*, Trefoil tree, a mistake occurred from my own fault. In speaking of the manner of propagation, I said it was by *seeds and flowers;* it must be corrected by *seeds and layers.*

P.

(From the New England Farmer.)

POTATOES.

Mr. Tidd's experiments of raising new varieties of Potatoes from seed.

Mr. Tidd deserves the thanks of the friends of agriculture, for the care, accuracy and extent of his experiment in producing new varieties of potatoes from seed, and the public are not less deeply indebted to him for the clear and satisfactory account which he has given of his experiment. I think that he may dismiss a great portion of his fears and embarrassments as to the future course of carrying his experiments into full effect. He may be assured that there is not the great danger which he seems to apprehend in the confusion of the new varieties which he has introduced by seed. If the potato ever degenerates by intermixture of the tubers, which is doubtful, he may rely upon it, that it is an exception, and not a general law.

I was sorry to find that the discovery of a single mixed potato should have led him to add the weight of his opinion to a doctrine, which it is believed is entirely unfounded.

No man has a greater contempt for mere theory than I have, on subjects of natural history, upon which we have so many opportunities of trying theory by its only true standard, experience. If the potato is subject to intermixtures by being planted near together, then the laws of nature have been always suspended on my estate for the last twenty years. I never planted a single field of potatoes without two or more distinct varieties; the rows, of course, have interlaced each other; in some cases I have planted two varieties promiscuously. Two early varieties have been thus planted for ten or twelve successive years, without producing a single mule or mongrel. If it be asked how this fact is ascertained, I reply, by the roots, and by the foliage flowers. The two varieties referred to differ in the shape and in the colour of the roots; but the difference in the foliage and flowers is equally great. I determined the last year to separate them, and I marked one variety when in flower. When the roots were taken up separately, I had the two varieties as pure as they were ten years before. It is not now recollected that any European writers have believed in this tendency of the potato to degenerate by intermixture; but the fact may be otherwise.

One of the benefits to be derived from a horticultural association will, I hope, be the settling of some of those doubts which have a mischievous effect on cultivation. So confident do I feel that the potato does not hybridize by planting different sorts contiguously, that I propose that fifty hills of potatoes shall be planted under the direction of a committee of the proposed society, and the product gathered under their inspection; that each hill shall contain four potatoes most distinct in colour and shape, and if there shall be one hybrid or mule produced, I will give fifty dollars to the society, to be distributed in premiums. But it should be understood that the supposed mongrel, mule, or hybrid shall be replanted, and shall be by the same committee, at the end of the second year, pronounced to be a new variety; or, in other words, that its change is *constant and material.* Sports in colour occur in every sort of natural production, and I have often seen a white stripe in a red potato without any apparent cause, and without any permanent change.

A Farmer.

Roxbury, Feb. 24.

(From the Southern Agriculturist.)

SWEET POTATO.

On Propagating the Sweet Potato from Sprouts.

Richmond County, Geo. January 24, 1829.

In all the month of February, on a rich piece of land, make beds two feet wide, at top, (or what is best, prepare hot beds,) open two furrows on each ridge or bed, take your large potatoes, and split them, laying the split side downwards, the middling size potatoes plant whole, plant the potatoes nearly touching each other in the furrow, and cover them about three inches deep, by this means you will have fine draws for planting out, by the last of April, and in May, when we *sometimes* have fine showers; the sprouts are best when planted before they commence to vine—they are to be drawn and set out as you do cabbage plants, they do not positively require, as was formerly supposed, a wet season to set them out in—a tolerable season will do, and I have known them to grow after a very slight shower—vinea are much more difficult to grow than sprouts.

Potatoes raised after this manner are larger, and more abundant than any other way, and *all descriptions of the sweet potato* are best from the sprouts. I would advise half the land you intend to plant, to be planted with the "potato planting," the other part in sprouts, and a small part in vines, for next year's "planting." I advise this as we cannot get rain always when we want it, and to manage our whole crop in sprouts would be difficult.

Tyro.

To. J. D. Legare, Esq.

Note by the Editor.—We shall be obliged to any of our readers or correspondents who have practised the mode of raising the sweet potato from sprouts, mentioned by our correspondent *Tyro*, to give us further information on this subject.

We have not a more valuable esculept than this common root, or one that contributes more largely to the comfort of our labourers, to their children's, or, in fact, to that of our own children, than the sweet potato. For the support of our stock, it is invaluable. Every method, therefore, of increasing its productiveness, and especially of bringing it in earlier in the season, is of great importance, and we intreat all our readers and correspondents to assist in the *improvement of the old,* as well as the introduction of new crops.

Why would it be more difficult to manage a whole crop as *sprouts?* We presume principally because the planting is more tedious. If this is the case, would it not be of advantage to introduce the mode followed in the west of England in planting out field cabbages? *That* is as follows:—

"Instead of a dibble, a *mattock* is used in making the holes. The broad end, or back part of the tool is struck down into the soil, eight or nine inches deep, more or less, according to the size of the plants; the handle being pressed downwards so as to form a vacancy behind the blade. The roots of the plant are inserted in it, and the tool carefully withdrawn without ruffling the fibres of the root. The plant is then raised into an upright posture, and the soil is pressed with the foot, in order to bed the fibres close to the plant. The plants are carried by a boy, who puts a single plant into the man's hand, at the instant he is ready to insert it. The man keeps his eye constantly upon his work. One man plants a quarter of an acre a day, thus inserting twelve hundred plants, three feet apart, without extraordinary exertion."

J. G.

YAM POTATOES.

To the Members of the Farmers'
Society, of Barnwell District.

Gentlemen,

I take the liberty of stating to you the mode of culture, and the produce of two half acres, (105 feet by 210 each) which were planted with Yam Potatoes, about the 8th of March, 1828. One half acre was planted with the Potatoes cut into small pieces, and placed at the distance of two or three inches on the trench; while the other half-acre was planted with the largest Slip Potatoes not cut, and placed at the distance of three or four inches. All the seed used for the acre was from the Yam kind. The beds were five feet apart; and both half acres were well hoed five or six times. No vines were cut from either half-acre. The season was unusually dry, and the Potatoe crop was much inferior to that of the last year. The half-acres were dug on the 30th of October: the cut Potatoes produced eighty-four bushels, and six quarts—the whole Potatoes produced eighty-three bushels three pecks and three quarts. Thus the difference between them was eleven quarts. In conclusion, I would remark that by cutting the Potatoes into small pieces, a less quantity of seed will prove sufficient for a certain quantity of land, nor will a failure of the crop result; on the other hand, the Potatoes, when planted without cutting, produced vines for the slips much earlier and more abundant. The Potatoes from each half-acre were unusually sound and fine, as will appear from the certificate of Wm. R. Bull, Esq. With these,

I remain yours, respectfully,
JOHN S. BELLINGER.

N. B.—It may be added, that the two half acres had been planted with Potatoes the year previous.

CERTIFICATE.

Barnwell District, }
South-Carolina. } I do hereby certify that at the request of Dr. John S. Bellinger, I assisted him on Thursday, October 30th, 1828, in measuring the product of two half-acres, planted with Root Potatoes, of the Yam kind. One half-acre was planted with cut seed, the other as usual. The first produced eighty-four bushels and six quarts; the second produced eighty-three bushels, three pecks and three quarts. The first produced thirty three barrels and two-thirds of a barrel; the second produced thirty-three barrels, one-third of a barrel, and half a bushel; each barrel's contents being two heaped bushels and a half of Potatoes. In addition, the Potatoes in general were very large, and uncommonly fine and sound.

WM. R. BULL.

ON THE CULTIVATION OF FINE COTTON,

By William Elliott, Esq.

Beaufort, Feb. 17, 1829.

My object in this communication is, to state to you my belief, I may say *my conviction,* that *the true secret of fine cottons is in the selection of seed,* and that it is the knowledge of *this secret* which has enabled some planters to double and triple the profits of the rest of the tribe! It is, indeed, the only satisfactory solution of the problem, so often remarked with surprise, that plantations of little value to their original owners, have, when transferred to the hands of the initiated, yielded such golden returns! But which is the seed to be preferred? and how do I know the fact of its superiority? I answer, it is the seed *with a tuft of pale yellow.** Its productiveness I cannot measure, (not having cultivated it separately,) but of its superior fineness I am perfectly satisfied. I have, indeed, heard it surmised that the seed cultivated by a planter of St John's, Colleton, remarkable for the reputation of his cotton, was entirely coated with green. But I neither know the fact, nor that the product of the *coated* is finer than that of the *tufted* seed. What I do know is this, that examining the cotton before it is ginned, I have remarked that the fibre from the tufted is finer and more silky than that of the clear black seed, and that a friend of mine, who shrewdly suspected there was something more in the matter than was published in newspapers, or in reports of agricultural societies, has, by selecting his seed for three years, *on this principle,* added 75 per cent. to the market value of his cotton! This is sufficient for me; I rely on my own observation, and the authority of a planter of unquestionable veracity? But this may not be satisfactory to others. "You may be mistaken," they may say, "and the purchaser of your friend's cotton may have been deceived as to its quality." The objection may be good; every one will judge for himself. I perform my duty when I state my own conviction and the reasons which sustain it, a conviction so sincere, that I mean to plant my entire crop, if practicable, of this selected seed, in the confident expectation of improving the fineness, and without fear of diminishing the quantity; not believing with the "*Enemy of Secrets,*" that the productiveness must necessarily be in the inverse ratio of the fineness.

[*Southern Agric.*

WORKING OXEN.

Much has been said and written against the common mode of working oxen with a yoke. This manner of attaching them to their load is said to be the principal cause of their moving with a slow pace. When oxen are attached to a cart with a stiff, heavy tongue, according to the New England mode, it is often the case that the load is so disposed in the cart that it bears heavily on their necks, and is very oppressive, especially in going down hill. And sometimes in going up hill, the tongue of the cart has a tendency to rise, in consequence of the preponderance of the part of the load which is behind the wheels, and the oxen are nearly choked by the bows of their yokes being drawn against their throats.

In France, working oxen are harnessed by the heads in such a manner as to call into action the joint power of the neck and the base of the horn.

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* The seed with a tuft of green is not easy to be separated from it, and may be nearly as fine.

This method was some years since introduced into Ireland, with complete success. Two oxen, thus harnessed, according to English accounts, were able to draw, with ease, *three tons* weight.

Mr. Cooper (*Young's Eastern Tour,*) uses collars on oxen as on horses, except that they are buckled on with the narrow and open end downward: the chains are fastened to them in the same direction as on a horse harness; the draught is therefore more inclined than with horses, the line of the chains being almost up to their backs; which is necessary from the different shape of horses and oxen. They draw, when in harness, abreast in pairs; single or in a line, *and walk as fast as horses.* Mr. Bordley says he "saw a wagon in Pennsylvania drawn by two bulls and two oxen, bridled and geared in harness and collars."

In *Plymley's Survey of Shropshire,* it is stated that "the ox teams of this county used to consist of ten oxen yoked: now those who use them generally plough with five oxen single in gearing, or with four oxen and a horse to lead them. A few persons have used them in wagons." And the same work mentions a team, in which "one ox shafted the wagon, and I believe this team, either in ploughing, or upon the road, was as able as any horse team in the neighbourhood. [*N. E. Farmer.*

REMEDY FOR POISONED SHEEP AND LAMBS.

These animals are sometimes poisoned by eating common low laurel, or lamb-poison, as it is sometimes called. The cure is very easy and simple, and is as follows:

I take an onion and split it in two with a knife, and put one piece under each fore leg, with the flat side next to the breast. If the animal is so badly poisoned as not to be able to stand on its feet, the onion may be so placed as to remain in its proper situation a sufficient time; if not, hold the onion in its place fifteen or twenty minutes, which will be sufficient to effect a cure. I have sometimes pounded the onion soft, and applied it in that state, which I think answers quite as good a purpose.

I have known and practised the above medicine more than fifteen years, and have never known it fail of effecting a cure in a short time, if properly applied, whatever might be the degree of sickness occasioned by eating poison, with this preference over other remedies, viz: The sheep, cured by this method, appear to become as healthy as if they had never been poisoned, whereas, whenever we used clay, oil, grease, &c. they generally shed their wool, and sometimes die before shearing time. [*Ib.*

HORTICULTURE.

(From Wildenow's Principles of Botany.)

Page 309. § 278.—The observations of Ingenhouss and others, confirm the opinion that corn and other vegetables, in a bad soil, when sprinkled with well diluted sulphuric acid, grow just as well as if they had been plentifully manured. It is well known to every gardener and forester, that trees planted in spring grow so much better by having had their holes digged in autumn, which, during the winter, were exposed to the influence of the air. Experiments have also shown, that soils which have been dug into loose heaps of earth, frequently stirred and then exposed for half a year to the influence of the air, produce a richer crop than if they had been manured, and retain this fruitfulness longer than by the application of manures.

Page 329. § 286.—It would appear that plants first form out of the elements the constituents which are found in them, and do not obtain them in such a state from the earth. Even the earth and metals which are found in them, appear to be originally formed out of the elements by the power of the organs. Schrader has made some very interesting experiments on this subject. He sowed in sublimated sulphur, several species of corn; sprinkled them with distilled water, and prevented dust or any other foreign body from approaching them. In this way no earth could come upon them; and yet these species of corn had the same constituents, the same kinds of earth and metal, viz. iron and manganese, that are found in the culm and ears of those which grow in the usual manner.

Some philosophers maintain, that plants imbibe from the ground, earthy, saline, mucilaginous and oily substances, and again deposite them. They therefore imagine that manure gives to vegetables the constituent parts, and that on this account plants grow up in it with greater beauty and rapidity. But plants do not deposite crude juices which have not been wrought in the cellular texture; on the contrary, all the fluids are completely formed. Were the case otherwise, a great quantity of ammonia, phosphorus and other constituents discovered in animal excrements, would be found in plants reared in dung. Now *in corn growing in a soil, either plentifully manured, or not manured at all, a greater or less quantity of these constituents is never observed.*

Manure operates only as a stimulus on the fibre of vegetables, so that they are enabled to absorb carbon the more rapidly, and all the constituents are first composed. This is particularly evident from the above related experiments, (§278,) where delved earth, saturated with oxygen, as well as ground sprinkled with diluted sulphuric acid, made plants grow more rapidly than a great deal of manure laid upon the earth.

Spanish Chestnut—Madeira Nut, or English Walnut.

Mr. Skinner:

Sir,—It seems astonishing that two such valuable fruit trees are so little cultivated as the Spanish chestnut and the Madeira nut, or English walnut. The former produces very large fruit of excellent quality, in the greatest abundance; and in the south of France, Spain, Portugal and Italy, it forms a most valuable article of food for the poorer classes, and is a regular article of sale for that purpose. It is but seldom this fruit finds its way to our markets from Europe; but a plentiful supply might easily be furnished, by planting orchards of this tree, the same as we do with the apple, or by planting them along avenues and highways; and there is no doubt they would as well repay the proprietor as an orchard of any other kind.

The Madeira nut may be planted in the same manner, and would yield also an ample remuneration, as the nuts are sold, when green, for a dollar the hundred for pickling; and when ripe, are in great request for the table. Hortus.

GRAPES.

Copy of a letter from J. Cable, Esq., of Upper Louisiana, to Wm. Prince, proprietor of the Linnæan Botanic Garden, dated Nov. 1, 1828.

Dear Friend,

In answer to your letter of the 20th of September last, I have gained all the information I can from persons in Texas. A French gentleman, by the name of Barnett, arrived here day before yesterday, on his way to New Orleans, direct from Rio Grande, being a trading merchant in that country. He purchases goods in New Orleans, and ships them from New Orleans round by sea to the mouth of the Rio Grande; from there he takes them into the interior of the country to St. Rose and other cities. He informs me that the Spaniards have native grapes and vineyards at the Paso or Pass on the Rio Grande, in Texas, of which they make brandy, Teneriffe, sweet Malaga, and claret wines that are tolerably good, from those vineyards. There are three different kinds of grapes, and the interior of the Mexican republic is supplied from these vineyards with wine. The Paso lies about 450 miles north west from St. Antonio. I shall endeavour to procure some of these grape seeds as soon as possible. I sent you in my first letter some of these grape seeds, and you mentioned to me in answer that you had planted them in your green house in the winter. I think I can obtain some of all those kinds that are on the Rio Grande through General Teran, commander in chief of the Mexicans in Texas. It will be some time before they will be obtained; the distance is considerable, about one thousand miles from this place.

I enclose you seven red beans, (*Erythrina,*) which I think will grow. They are fresh and good. I got them from the Caddo nation of Indians.

(From the New England Farmer.)

THE ORCHARD.

Mr. Fessenden,—It is much to be regretted that so little attention is given to the cultivation of apples, as it is well known that those of a good quality, especially winter apples, generally find a ready market at a fair price. But, strange as it may seem, only here and there a farmer, or any one else, makes any exertion to rear an orchard, or even a small number of valuable apple trees. And in most instances, where any effort of the kind is made, it is in such a way and manner as to present very little prospect of success. How often is it the case, that shrubby, unpromising trees are procured and set out, because they cost little or nothing; and when those more thrifty and flourishing are chosen, they are frequently torn in a barbarous manner, and set out under such circumstances as to give very little chance for future growth or prosperity. And, should they in some instances live and grow, they are frequently mangled and destroyed by cattle, which are occasionally turned in upon them, or left to dwindle and die for the want of suitable care and cultivation.

It is said, that 75 or 100 years ago, apple trees grew almost spontaneously, being properly set out, nothing more was necessary, the work was completed; and in a few years they arrived at maturity and produced plentifully. But the course of things has materially changed. Now we might as well think of raising a field of corn without the use of the plough or hoe, and the application of manure, as to rear an orchard without labour and cultivation. From the little experience I have had, I find particular care and attention indispensable, especially during the early growth of the tree, as its future prosperity greatly depends on the outset. I have tried different methods in rearing apple trees for bearers. I have several now in a productive state, which were raised from the seed, but none of them producing apples fit for any other use than to make into cider. Others I have which were produced by setting out small trees, and letting them stand one or two years, and then grafting them at the ground. These have grown very well, bearing earlier than those raised from the seed. A third class I have, which were taken from Mr. Kenrick's nursery, at Newton, in the spring of 1826, being then of two years growth from the inoculation, and although taken from land in a high state of cultivation, and planted on that of an ordinary quality, have done remarkably well, and appear better and more promising than any others I have growing. Should no calamity befall these trees, they will probably in a few years doubly repay all the labour and expense devoted to them.

I have several others, taken last fall from the fine nursery of Dr. Fiske, in Worcester, which, judging from their thrifty appearance, will flourish equally as well, if the same care and attention be paid to them. I am now entirely satisfied that it is the most economical and expeditious way of rearing apple trees, to take them directly from the nursery already grafted or inoculated. In this way apples of the best kinds may be produced in a short time, with comparatively little trouble or expense.

I have stated that the trees which I took from Mr. Kenrick's nursery, appear better and more promising than any others I have growing. Although such is the fact, it is not on account of any superior management, or more particular attention paid to these than to others, as I pursue substantially the same course with all my young trees.—The cause I attribute mostly to their thrifty and healthy state when taken from the nursery. I am particularly careful in taking up young trees to break and injure the roots as little as possible, and in setting out equally cautious to have the roots properly adjusted. I make the holes about four feet in diameter and from twelve to eighteen inches in depth into which I place the roots of the tree, I then put in a small quantity of compost manure, then replace what was taken from the hole, putting the best or loamy part first, or at the bottom. I annually dig about the trees the same distance as was dug for setting them out, and plant potatoes, applying yearly a little more manure, and in this way keep the ground loose and in good order, so that the roots spread rapidly around, the trees grow fast, always presenting a healthy and thrifty appearance.

County of Worcester, March, 1829. A Farmer.

SILK WORMS, COCOONS, &c.

The Philadelphia Society for the promotion of the culture of Mulberry Trees, and raising of Silk Worms besides the offer of premiums for those objects, made considerable exertions to procure from Connecticut a person to teach the mode of winding silk from cocoons, and of making sewing silk, but without effect. They intended also, in the event of such a person being procured, to form a fund for the purchase of cocoons. Having been disappointed in their expectations in this particular, they have sent to France for an experienced workman, and have reason to believe that one will arrive in time for attending to the business in the course of this year.

They therefore think proper to assure those who may wish to engage in the business of rearing Silk Worms, that a fund will be established for the purchase of Cocoons, at such a price as will enable the society to continue their efforts, without encroaching upon the small capital which they have at command. They regret that this will not permit them to buy at a price amounting to a bounty, but *they will give the just value of the several qualities which may be offered for sale*, and they hope that those who may engage in the business will exert themselves to bring forward cocoons of the best quality; as, otherwise, they cannot be paid a price which will satisfy them. Cocoons differ greatly in quality, owing to the nature of the food upon which the Worms are fed, and to the general care taken of them during their short existence.

FRENCH METHOD OF TRANSPLANTING.

During dry weather, the gardeners of Paris do not wait for rain as ours generally do; but as soon as their crops require removing, it is done in the following manner. Having chosen the spot, they well water the top, and immediately dig it under, and afterwards water the fresh surface, and as soon as it is dry enough, it is raked, and the plants put in without any regard to the mid-day sun; they continue to water the bed three or four times a day, until the plants have taken root. It is surprising how soon lettuces, cabbages, &c. will be well rooted by such treatment, and with what vigor they grow after the first shower of rain. What would have been the state of such plants had they remained in the seed bed? They would have drawn each other, their first leaves would have dropped off, and general debility would have followed, not easy to be removed: but, by the French treatment, not a leaf will be lost. Now, if we consider the principle, it is simply this: that every plant placed in the sun in water will in no way flag, and the continued wet state of the bed for the first few days is similar to it, besides, the presence of the sun contributes powerfully to the rooting of the plants. [*Eng. pa.*

INTERNAL IMPROVEMENT.

(From the New England Farmer.)

BROAD WHEELS.

Mr. Fessenden,—I saw in a late number of your useful paper an article written on the subject of broad wheels, from which I understood that wagons with wheels, the tire of which being of a greater breadth than five inches, were required by law, and in general use in one or more of the N. England states.

I have long considered the regulation of the breadth of wagon wheels, a subject worthy of legislation, as nothing would, in my opinion, contribute so much to improve the condition of our roads. In our state, Pennsylvania, broad wheels are confined to the turnpikes. I am well convinced that the general adoption, though as first attended with some additional expense, in preparing the roads for their use, and a loss from casting away those at present used, would, on a few years trial, be found to contribute to the advantage, as well as comfort of the inhabitants, of any country, where they were in general use.

I have entertained the opinion, that in the construction of wagons, there might be, in addition to the advantage derived from the width of the wheel, another from the axles being of a different length, so that the wheels would not follow exactly in the same track, but that the hindmost might track about five inches nearer together than the two foremost. The adoption of this plan would be attended with some expense, but would eventually be found highly beneficial, as the highways instead of being cut deep as at present with the narrow wheels, and prepared for to be washed into gullies, would be kept even, smooth, and compact as if it were by rollers.

I would be very thankful if you would be pleased to communicate by private letter, or through the medium of your paper, a sketch of the law on the subject; with information of the place and time of its origin, and also its effects. Yours, &c.

Harrisburg, Feb. 16, 1829. J. A. Caldwell.

The following is a copy of the act, to which the above has reference:

An Act providing for the use of Broad Rimmed Wheels.

Sec. 1. *Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same,* That from and after two years from the passage of this act, the wheels of every wagon, carriage or vehicle built or rimmed anew, and drawn by two beasts (excepting pleasure carriages) passing upon or over any turnpike or common highway, within this commonwealth, shall have felloes not less than four inches in width, and if drawn by more than two beasts, the said wagon or other vehicle (excepting as aforesaid) shall have felloes not less than five inches in width: *Provided*, that the wheels of stage coaches passing as aforesaid, may have felloes only four inches in width.

Sec. 2. *Be it further enacted*, That the owner or owners, and also the driver of every wagon, carriage, or other vehicle, having wheels contrary to the provisions of this act, who shall drive or suffer the same to be driven, upon or over any turnpike or common highway within this commonwealth, shall forfeit and pay for each offence, a sum not less than five dollars, nor more than twenty dollars, to the use of the Turnpike Corporation, City, Town, or district liable by law to support the turnpike, or common highway, upon which the offence shall have been committed, to be recovered before any Justice of the Peace within and for the county within which the offence shall have been committed, not being a member of the Turnpike Corporation, or an inhabitant of the City, Town, or district liable for the support of the Turnpike, or common highway as aforesaid: *Provided, however*, that the provisions of this act shall not extend, or be applied to either of the counties of Dukes or Nantucket, nor to any carriage passing upon or over any of the roads aforesaid, solely for the purposes of common husbandry. *And provided further*, That no prosecution shall be sustained under the provisions of this act, which shall not be commenced within ninety days from the commission of the offence, upon the complaint of the Treasurer of the Turnpike Corporation, or one of the surveyors of highways within the City, Town, or district liable for the support of the road upon which the offence shall have been committed, to a Justice of the Peace having cognizance of such offence.

Sec. 3. *Be it further enacted*, That this act shall be published in the month of January and October in each year, for the term of two years, in all the newspapers in which the laws of the commonwealth are published, and shall also be read at the annual town meetings in March and April, for the same term of years.

Approved by the Governor, March 3, 1828.

LADIES' DEPARTMENT.

THE BLUE RIBBON.

In what we, of Alesbury, call the old times, say fifteen or twenty years ago, before fashion with her bewildering train of nameless elegancies, had become among us, an all pervading mania, and made many fine birds and as many lean purses, our occasional intercourse with the cities on the coast sometimes produced effects, the progress of which might afford matter for many interesting tales. The persevering dame was long shut out of our unassuming village. The fathers of the hamlet looked at her with so jealous an eye, and exerted against her such powerful and vigorous authority, that, whenever she appeared, she met with a withering scowl.—They preferred and for good reason as experience hath taught, the linsey-woolsey of the village loom; and all its plain, and simple and economical accompaniments. The boys wore woollen hats and ran barefoot; and the girls put up their hair with horn combs, or let it curl around their necks—and I very well remember, that once, when a Connecticut pedlar stopped in the town with a parcel of japanned and flowered tin combs, the old men held a council, and ordered him to decamp, considering his merchandize calculated to demoralize society, by breaking in upon the good old rules of plainness and simplicity in dress.

Two very pretty girls, daughters of an honest, industrious man, who lived on, and was part owner of, the Hollow Farm, received one christmas day, a neat little box, from their cousin in Philadelphia, containing several yards of fine broad blue ribbon, as a holiday gift. The news was soon spread abroad among the young ladies of the neighbourhood, and the fortunate girls, the Miss Chesters, invited all their companions to spend an afternoon with them, for the purpose of determining the manner in which this rare present had better be disposed of. One of the visiters had been to the city in her time, and had seen she said, the like used as sashes, by the fashionable in the great world.—It was, therefore, resolved, that the blue ribbon should be converted into sashes—and next Sunday, the Miss Chesters were carefully watched for at the meeting which was held; and they came. Every one of the young folks admired their appearance; the beaus were in extacy; and twenty eyes were upon the elegant blue sashes all the while.

The subject became a common topic of conversation. The old folks scolded, but the rest were all delighted or jealous. The Miss Chesters happened to rule the roast at home.—Their kind father and mother never crossed them in their wishes; and they soon discovered that their splendid blue sashes were entirely too fine even for their Sunday calicoes. They soon therefore made their appearance in pretty new muslins, as white as snow. Chester's long sighted neighbours took the alarm at this, and began closely to inspect their accounts with the hitherto thriving tenant of Hollow Farm, and to watch the progress of this new danger with peculiar vigilance. Chester's land will grow poor, said they, for it will soon cost him more to dress his daughters, than to keep two yoke of oxen.

It was not long before the young ladies saw, as they stepped smartly before the glass, that their blue stockings looked shocking with the white dresses. Fine white cotton ones were procured from a distant store. The father was delighted with the attention his girls attracted, and suggested himself that plain check bonnets appeared horrible on the heads of such lady-looking persons as they had become. A couple of nice green silk ones were substituted, as soon as they could be procured; and before they were finished, the girls discovered that their leather shoes spoiled their white stockings, and besides, could never be made to fit their feet. Morocco was not readily to be obtained, but morocco they must have, and they were bought.

Equipped now, from head to foot, their brains were fairly turned. Their beaus admired them more than ever; and every young lady knows what an effect this has. They looked in the glass and admired themselves; they felt that they looked pretty, and girls always feel a little proud of their beauty. One day, when they were dressed to go out and show their fineries, Mrs. Chester, who had seen a good deal of fashionable life in her time, could not but remark to her husband how well she thought ruffles, or golden chains, (the last were mentioned in a whisper,) would become the girls He began to be alarmed, but, not making any loud objections to the idea, glorying as he did in his pretty daughters, a letter was secretly written to the cousins in the city, and the chains were purchased on a long credit. The ruffles were also made up. When all was ready, the girls were decked off in all their finery, dressed in spotless white, with their blue sashes and green bonnets, their brown hair curling on their shoulders, the costly chains of fine wrought gold clasped on their necks, but half concealed by beautiful ruffles; and blushing with pleasure, they were presented to their father. The good man saw through the whole, looked sad a moment, heaved a deep sigh, and was just on the point of pouring a passionate malediction on the blue ribbons, when they both threw their arms round his neck, and wept. Overcome by his parental feelings, instead of scolding, he kissed them both, praised their beauty, and told them to remember his circumstances, for he was already involved in debt on their account.

But matters were not yet wound up entirely The daughters had discovered that one thing more was necessary to render them entirely enchanting. They were fat, healthy girls, two feet six or eight inches round the waist. This remained to be remedied. Mothers can tell what kind of jackets accomplished the purpose in old times that corsetts do now—these were procured. Half squeezed to death as they were, Mr. Chester soon found his daughters could not work as usual. Servants had to be procured to take their places. By and by, these were obliged to wait so much on the ladies that more were necessary. And at last his darlings, after being screwed up a few months, were ready for a visit to their fine city relations. They went. Next summer half a dozen returned the visit, and two young ladies and a gentleman quartered on the Hollow Farm all the season.

Mr. Chester now found his affairs fast approaching a crisis. He was dreadfully involved; going behind hand on every side; ruin just before him. He roused up. He was a sensible man, and the sequel shewed that he had an energetic soul. He first mortgaged his half of the place, and paid all his debts. He then made one sweep at the ward robe of the young ladies. Away went muslins, and silks, and laces, and gold chains, and servants, and the whole establishment of fashion. And though tears, and entreaties, and fainting fits, and frowns met him at each step, he accomplished every item of his plan; and the girls eat their christmas dinner in linsey frocks and woollen stockings, as in days long past. The Chester family owe it to this circumstance wholly, that this day they own Hollow Farm; for the old man cleared off the mortgage, and bought the other half before he died.

SPORTING OLIO.

PERCUSSION POWDER.

[As percussion guns are rapidly superseding those with the flint, and having given several articles on the subject in recent numbers of the Farmer, we have thought the mode of making *percussion powder*, would be interesting to the readers of our sporting olio. We therefore copy from Johnson's Shooter's Companion a full description of the mode of preparing it. It may be proper to remark here, that when the percussion lock is properly constructed, (and nearly all we have seen now for sale in the stores, and in use by gunsmiths, are of the proper construction,) there is no danger whatever in firing them. Injury from the explosion of the *caps* can never occur with them; and those who have been injured, must have used locks of bad construction.]

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Of Percussion Powder, and the best Method of making it.

Percussion powder differs from common gunpowder, inasmuch as it ignites with a blow, or, in other words, with excessive friction; and contains so great a proportion of elastic fluid, that, on explosion, its expansive force, compared with gunpowder, is at least in the proportion of twenty to one, perhaps much greater.

How long the composition of percussion powder has been known amongst able and experimental chemists, I will not pretend to decide; but its discovery is not of a very recent date; and some years past, an attempt which was made in France to introduce oxymuriate of potash into the manufacture of gunpowder, was attended with fatal effects.

Percussion powder may be made of oxymuriate of potash, sulphur and charcoal; and these are probably the component parts used both by Forsyth and Manton. I tried a number of experiments on the above ingredients, and after varying the proportion of each in every possible way, it appeared that the following were the best calculated for the purpose:

Oxymuriate of potash, nine parts
Sulphur, one part and a half
Charcoal, one part.

But I was surprised at the variations which might be made in the proportions or parts, without any perceptible difference in the result. One effect, however, I uniformly found, namely, excessive corrosion; and those who have been in the habit of using Forsyth's method are very well aware of the urgent necessity of cleaning the lock immediately after using, in order to prevent the destruction of the percussion apparatus, as one night only would produce a degree of rust scarcely credible by those unacquainted with the nature of oxymuriate of potash. Whatever advantages were to be derived from the use of percussion priming they were certainly much lessened by the trouble of cleaning, as the feculent matter deposited was much greater in quantity, and adhered with more obstinate tenacity, than that which is produced by the discharge of gunpowder; I was, therefore, pleased to find that the following remedied the evil:

Oxymuriate of potash, one ounce
Antimony, one ounce

well pulverized and made into a paste with spirit of wine in which a little rosin or gum mastic has been dissolved: it may be granulated by forcing it through a hair sieve when it is nearly dry, and will be fit for use without further trouble. If spirit of wine be not at hand, I believe vinegar, without either rosin or gum mastic, will answer the purpose.

In making percussion powder, I would wish to impress upon the mind of the sportsman the strong necessity of caution in the preparation. The oxymuriate of potash should be pulverized separately upon a smooth stone, (or a smooth hard board will answer the purpose.) but with a wooden mullar, as it would be apt to explode if rubbed with a heavy stone mullar, particularly if great velocity were used. It is of no consequence how the antimony is reduced to powder; it may indeed be purchased at the druggists in powder, but seldom sufficiently fine for the purpose. However, when the oxymuriate of potash and the antimony are ground so as to be impalpable, they may be mixed with a pallet-knife, (adding the spirit of wine or vinegar,) and forced through the sieve as before mentioned. I have generally used spirit of wine, in which a little rosin has been dissolved in preference to vinegar, because I am of opinion, that powder thus made up is not so apt to imbibe moisture. Eau de Cologne is supposed to be preferable to spirit of wine; but the difference when using the powder is imperceptible. Excessive friction from iron or steel, or other very hard substances, would, no doubt, ignite this powder; but it would be a difficult matter, however hard it might be rubbed between two pieces of wood, to produce combustion.

It has been before observed, that if sulphur and charcoal are used with the oxymuriate of potash, a great excess of corrosion will result from the explosion: but antimony corrects or neutralizes the acidity or corrosive quality of the oxymuriate of potash, and renders the powder less injurious, in regard to rust, than even common gunpowder; while it is, in every other respect superior.—An ounce of oxymuriate of potash, and an ounce of antimony, will make, I should suppose, about 10,000 primings.

It may be mixed up in the manner before described in a few minutes, without the least danger. The oxymuriate of potash, when bought at the chemist's, by single ounces, costs two shillings and nine-pence an ounce, and I have no doubt, could be sold, with a reasonable profit, for much less; an ounce of antimony will cost a penny: so that, including the spirit of wine, the expense of two ounces of priming powder will scarcely amount to three shillings. For an ounce of priming-powder, Mr. Forsyth charges ten shillings and sixpence (or, at least, used so to charge.) When the superior strength of percussion powder is taken into consideration, it is much cheaper than gunpowder. Two ounces of the best gunpowder will cost more than sixpence; two ounces of percussion powder will scarcely amount to three shillings, while one-twentieth part will answer the purpose: but, how far it is susceptible of application to fire arms beyond the priming has not been determined; yet the present forms of the breeches of guns are not calculated to admit of its use for the charge, on account of the very small quantity which would be admissible for that purpose. Nor, for the purposes of safety, would it be adviseable to carry percussion powder in a spring top flask, unless the springs were altogether made of something much softer than steel. If the sportsman thinks proper to carry percussion powder into the field, independently of what he has already prepared for priming, I know of nothing more safe or more convenient, than a small wooden box.

For military purposes, I should think percussion powder, for priming at least, an object of the first importance. The method invented by Gill would be an incalculable advantage to the musket, as missing fire could never happen, rain would have little or no effect, while the ball would be impelled with much greater force. To great guns, Gill's invention is equally applicable, at a very trifling expense.

Pedestrianism.—A young gentleman of the city of Boston has walked to Charleston, S. C. 1150 miles, in 36 days; from Niagara Falls to Rochester, in two days; from Saratoga Springs to Boston, in four successive days; from Providence to Cambridge st. in Boston, in less than 10 hours, including stops; besides other excursions to Ticonderoga, Plattsburg, N. Y. Burlington, Vermont, and Mount Washington, N. H. amounting in all to *twenty-seven hundred miles.* The first of these walks is a remarkable exploit.

RECIPES.

Cure for the Sick Head Ache.

A correspondent in the Tuesday's Advertiser states, that three or four small lumps of citric acid, dissolved in cold water, and drunk off, are a cure for sick head ache, arising from the deficiency of acid in the stomach. The experiment is simple, and worth a trial, at least. We are not informed whether the remedy has a similar effect when the disease arises from a superabundance of acid on the stomach. *Liverpool Mercury.*—[We can inform our contemporary of an infallible remedy in his latter case, and one no less cheap and simple than the acid; namely a teaspoonfull of finely powdered charcoal in half a tumbler of water.—In less than fifteen minutes relief will be experienced.]

Day and Martin's Blacking.

The following are said to be the materials of which Day & Martin's blacking is made:

To one pound of ivory black, in which has been mixed half an ounce of oil of vitriol and an ounce of sweet oil, add one pound of pulverized loaf sugar; mix the whole with a gallon of vinegar, and let it stand three days, when it is fit for use. It should be stirred often and kept from the air to prevent evaporation. The cost of a gallon of this blacking is 75 cents, and it is retailed at the stores for four dollars.

Striking Fire by Ice.

The Nashville Banner contains the following mode of striking fire by the agency of ice.

"Provide a piece of ice clear and transparent, an inch thick and three inches in diameter. Shape the edges so as to leave the sides convex, and as nearly as possible to resemble a double convex burning lens. Then polish the ice by rubbing it between the palms of your hands, until you produce a smooth and regular surface; and it will readily draw a focus from the sun and ignite any matter which is moderately combustible."

THE FARMER.

BALTIMORE, FRIDAY, MARCH 27, 1829.

☞ "Society for Promoting the Culture of the Vine."—A company, under this name, and with a capital of $12,000, has been incorporated by our legislature at its recent session, and is to go into operation on the first of the ensuing April.

The objects of the company are, to introduce and encourage the general and skilful culture of the vine; and to "hold such lands and real and personal estates, and erect such works and establishments, as may be proper for cultivating, improving, gathering, preparing and preserving the grape, as also for the manufacture and preservation of wine."

☞ Serab.—On examining the Stud books, it is found, that the pedigree of Serab, as given in an article in our last number, was erroneous; it will be found correct in the present number.

☞ Baltimore Market.—The intelligence from Europe received since our last, has had the effect of still further depressing the flour market. Yesterday morning, the price from wagons was $6.75, and a further reduction was expected. The store price was $7, at which some few sales were made on Wednesday. The market, however, continues very unsettled, both as to the wagon and store price of Howard street flour.

Latest Foreign News.

The Packet ship Britannia, has arrived at New York, bringing Liverpool dates to the 3d, and London to the 2d February. The Cotton market had revived the last few days. The sales of the week ending Jan. 30th amounted to 18,300 bales and an advance of 1-8 to ¼d took place on the prices of some descriptions.

The Grain market continued dull, and prices were rather lower—but the decline was not sufficient to affect the rate of duty.

The Paris papers of the 28th Jan. state that the Turks were crossing the Danube at every point; that the Pacha of Widdin was marching with 30,000 men against the principalities, and it was thought that, unless the Grand Duke Constantine arrived in time to stop the invasion, the Russian army would be obliged to re-cross the Pruth. There was a general movement of the Turks along the whole line of the Danube, from Widdin to Silistria.

A London paper says, "the proposed connexion between the Ottoman government and the U. States, has suddenly come to an end. The Americans proposed, as the basis of a treaty, the free passage of the Dardanelles to all nations, but this most republican proposition was instantly rejected, with the dignity befitting Turks."

The French Chambers were opened on the 27th Jan. by a speech from the King. It expresses a hope that the Porte will accede to the treaty of London, relative to the independence of Greece, but gives no expectation of peace being effected between Russia and the Porte.

The British Parliament were to meet on the 5th.—Some of the papers are of opinion that Mr. O'Connell will not be admitted to a seat. Others affirm, that an attempt will be made to carry the Catholic question—that the Duke of Northumberland has become a convert to the Irish claims, &c.

Liverpool Market.

Liverpool, January, 31

In the early part of the week there was a limited demand for Cotton, and the market in the same languid state as for some time past, but subsequently both dealers and spinners came forward, with spirit, and purchased extensively. Yesterday and the day previous, upwards of 10,000 bales found buyers, and the sales of all descriptions for the week ending last evening, amount to 18,360 bales, including 130 Sea Island, 12 a 14½d, 100 stained, 6 a 10, 10,000 Upland, 5½, 6 3-8, 90 a 6¼, 1360 Orleans, 6½ a 7½, 8 a 8½.

The attention of purchasers has been chiefly directed towards Amer. Cotton, especially Upland; in the common qualities of which an advance of 1-8d, and in some partial instances, of ¼d per lb. has been realised; all descriptions are indeed more saleable, at an improvement of 1-8d per lb. from the lowest point of the week previous, and the appearance of the market generally is more healthy.—Speculators have taken about 4000 bales, 2000 Am. and the remainder Brazil. It would appear that consumers have held back as long as practicable, and their wants having become imperative, they are compelled to supply themselves. The import during the week is 12,592 bales, and since 1st January it amounts to 37,587, against 41,629 to the same period last year; it must however be observed, that the arrivals yesterday were remarkably heavy, being not less than 25,000 bales.

There are no transactions in Turpentine, Rice or Quercitron Bark to report. The Corn market remains in a dull and depressed state, Wheat has declined 2s a 3s per quarter, during the week, Indian Corn 1s a 2s per quarter and Flour 1s a 2s per bbl., the arrivals of the latter article continue rather heavy.

Tobacco—The sales during this month amount to 1428 hhds. viz: 129 Virginia leaf, and 770 stemmed; 397 Kentucky leaf, and 150 stemmed. Of these, about 300 hhds. of Kentucky leaf have been taken for export, 150 Virginia stemmed for home use, and 20 of all kinds for Ireland; the remainder on speculation. It having become known by a letter received from the Chancellor of the Exchequer, that it was his intention to propose to Parliament, the coming session, that an additional duty of 3d per lb. be levied on all stemmed tobacco arriving after the 5th of April next, with the almost certainty of its being carried into effect, has caused holders to keep back their stocks, except at a considerable advance, and higher rates are also required for leaf.

Feb 2, evening.—The sales of Cotton on Saturday, the 31st ult. and to-day, are estimated at 4000 bags, but in prices no change.

Liverpool, Feb. 2.—At the Corn Market to-day, last Tuesday's prices of Wheat were noted 1d to 2d; Barley 3d to 4d per bushel; Indian Corn 1s to 2s per qr. The trade has continued exceedingly dull, and in the absence of all country demand, and extensive imports, our prices of most articles have further receded. We quote Indian Corn, per 480 lbs. 37s to 39s; American sweet Flour, 39s to 41s; do. sour, 39s to 40s.

Manchester, Jan. 31.—The business in our grain market is still confined to the supplying of immediate wants.

Prices Current in Boston, March 20.

Apples, best, bbl. $3.00 a 3.75. *Beans*, white, bushel 1.00 a 1.37. *Beef*, mess, bbl. 10.00 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 8.75 a 9.00; Genesee, 8.75 a 9.00; Rye, best, —. *Grain*, Corn, bush. .63 a 65; Rye, .60 a .66; Barley .67; Oats .35 a .38. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 16.00 a 16.50; Navy, mess, 13.00 a 13.50; Cargo, No. 1. 13.00 a 13.25. *Seeds*, Herd's Grass, per bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 4 00; Rye Grass 4.00; Tall Meadow Oats Grass 4.00; Red Top 1.00; Lucerne, lb. .50; White Honeysuckle Clover, .50; Red do. Northern, .7 a .9; French Sugar Beet 1.50; Mangel Wurzel 1.50. *Wool*, Merino, full blood, washed, .35 a .44; do. do. unwashed, .22 a .26; do. three-fourths washed, .30 a .35, do. half and quarter washed, .28 a .33; Native, washed .25 a .28; Pulled, Lambs', 1st sort, .37 a .41; do. do. 2d sort, .25 a .30; do. do. spinning, 1st sort. .30 a .33.

Prices Current in New York, March 21.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .10 a .12; Upland, .8½ a .10; Alabama, .9 a 10½. *Cotton Bagging*, Hemp .19 a .21; Flax .15 a .18. *Flax*, American .8 a .9¾. *Flaxseed*, rough, tierce $11.00; clean 12.00. *Flour*, New York, per bbl. 7.50; Canal 7.75 a 8.00; Baltimore Howard street, 7.75; Richmond city mills, 7.50 a 7.62½; country 7.50; Alexandria and Fredericksburg 7.50 a 7.62½; Petersburg 7.50 a 7.62½. Rye Flour 3.87½ a 4 00; Indian Meal, barrel 2.87½; hhd. 14.50 a 15.00. *Grain*, Wheat, North River —; Virginia 1.50 a 1.57; N. Carolina ——; Rye, Northern .70; Corn, Northern .53 a .55; Southern .40 a 45; Barley 55; Oats .32 a .37; Peas, white dry 7 bush. 4.00; Beans, 7 bush. 8.00 a 9.00. *Provisions*, Beef, mess 9.00 a 9.50; prime 7.00 a 7.50; cargo 5.50; Butter, N. York, 12½ a 16; shipping, .8 a .11; Lard, .6 a .6½; Pork, mess 11.75 a 12.50; prime 9.75 a 10.00; cargo 8.50 a 8.75; Hams, Virginia .9 a .10; Northern .9 a .10. *Rice* .3½ a .3½; Whiskey, rye, per gall. .24; Cider Brandy .30 a .33. *Tobacco*, Virginia .3½ a .6½; Kentucky, .3½ a .6½. *Wool*, Merino, American fleece, .32 a .38; Pulled, .32 a .35; common, 18 a ..25.

Prices Current in Philadelphia, March 24.

Bees-wax, yellow .23 a .24; *Beans*, bushel $1.25 a 1.50; *Beef*, mess 10 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .8 a .9, No. 2, .5 a .6; *Cotton*, New Orleans .11 a .13, Upland .8 a .10½, Tennessee .9 a .10½, Alabama .9 a 10½; *Feathers*, Southern .33 a .34, Western .31 a .32; *Flax* .8 a .8½. *Flour*, super. 7 50; fine 7.00 a 7.12½; Rye 3.50; Cornmeal, hds. 12.50, bls. 2.50; *Flaxseed*, cask 11.00, bu. 1.40; *Grain*, Wheat 1.50 a 1.60, Rye .60 a .70, Corn l. c. white .42 a .44, l. c. yellow .43 a .45, u. c. round .50 a .52, Oats .25 a .33, Barley, Pa. .45 a .50; do. Eastern, .55; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western —; *Hemp*, 235 a 240; *Lard*, .7 a .8½; *Oil*, linseed .81 a .83; *Pork*, mess 13.00 a 13.50, prime 12, cargo 10.25 a 10.50; *Rice*, 3.00 a 3.75; *Tobacco*, Kentucky .3 a .6½, Virginia .3½ a .5½; *Wool*, common washed lb. .28 a .30, half blood .30 a .33, three quarters blood .33 a .35, full blood .36 a .40, unwashed, generally 10 cents less, according to quality.

SERAB.

The imported blood horse Seraa, will stand the ensuing season at the stable of John Snedeker, near the Union Race Course, Long Island.

This horse was foaled the property of Mr. Batson, in England, in 1821, and at three years old was sold to the Earl of Darlington, for the sum of 3000 guineas, from whom he was purchased the last year by his present owner, Admiral Sir Isaac Coffin, who deeming him one of the best stallions in England, sent him out for the benefit of his native country.

Seraa proved himself a first rate runner upon the English turf, (as will appear by the statement hereafter given of his performances) never broke down, and is now in perfect health and soundness. His blood, as will be seen by the following pedigree, is of the best in all its strains; and in point of size, colour, action, and in elegance of proportion, he was in England, admitted to be one of the first horses in that country; and here, the subscriber will challenge competition.

Serab is sixteen hands high, large over the girth, muscular in all of his proportions, large in bone, clean in his limbs, on which there is not a windgall or blemish, is most excellent in his action, *trotting* neatly and clearly off the ground, as well as moving correctly in his other paces. His colour is a dark bay, without any white, and his coat is very beautiful.

He was got by *Phantom*, out of *Jessey* by *Totteridge*; her dam *Cracker* by *Highflyer*, out of *Nutcracker* by *Matchem—Bolton—Starling—Partner—Croft's Bay Barb—Makeless—Brimmer—Dicky Pierson—Burton Barb, &c. &c.*

Phantom by *Walton*,—dam *Julia* by *Whiskey*, out of *Young Giantess* by *Diomed—Spectator—Blank—Childers.*

Walton was by *Sir Peter Teazle*, out of *Arethusa* by *Dungannon*, dam by *Prophet* out of *Virago*, (*Saltram's* dam) by *Snap,—Regulus* &c.

Sir Peter was by *Highflyer*, (a son of *King Herod*,) out of *Papillon* a sister to *Middlesex*, (*Sincerity's* dam,) by *Snap—Regulus—Son of Bay Bolton—Bartlet's Childers—Honeywood's Arabian—Byerly Turk, &c.* Thus it will be seen that the blood of Seraa is derived directly from the most superior horses ever produced in England.

Performances.

1824.—He started and won at Newmarket, Spring meeting, in May, (then 3 years old) the *Newmarket stakes* of 50 guineas each, 25 subscribers, ditch mile, carrying 119 pounds, beating Pucelle, Dragoman, Presentiment and Rebecca.—*Won Easily.*

At Epsom, in June same year, he started for the Derby stakes, of 50 guineas each, 58 subscribers, one mile and a half, carrying 119 pounds, and was unsuccessful. *Cedric the winner.*

At Doncaster, in September same year, he started, (but was pulled up immediately, not getting a fair start,) for the St. Leger stakes of 25 guineas each, 77 subscribers.

1825.—At Newmarket, Craven meeting, April, he *won* the Port stakes of 100 sovereigns each, 7 subscribers, carrying 119 pounds, the two middle miles, Beacon course, beating *Pucelle* and *Reformer.*

At the Spring meeting, 21st of April, he *won* the Handicap stakes of 100 sovereigns each, six subscribers, one mile and a quarter, (across the flat,) carrying 119 pounds, beating *Silkworm*, (100 pounds,) *Hajji Baba*, (104 pounds,) and *Egyptian*, (103 pounds.)

At Ascot Heath, in May same year, he started for the *King's Plate*, carrying 147 pounds, four miles, and was beaten by *Cydnus*—ten to one on *Serab* at starting.

The *same day* he started for the *Oatland stakes*, two and a half miles, and was beaten by *Pucelle*, whom he had twice beaten before, as also by *Hajji Baba*, whom he had beaten also at the Spring meeting.

1826.—At York, August meeting, Lord Darlington's *Serab*, 5 years old, *won* 100 guineas given by the King, four miles, carrying 161 pounds, beating the famous horses *Lottery*, *Leadstone* and *Dramatist.* A very severe race, and won by a length: time 7 minutes 58 seconds.

1827.—At Stockton, August 16th, *Serab* contended in a sweepstakes of 10 guineas each, for all ages, two miles, six subscribers, carrying 126 pounds, and ran second to *Crafty*, carrying 112 pounds, and beating Mr. Watts' filly by Magistrate out of Manuella.

The next day, August 17th, at the same place, *Serab* ran for the gold cup, value 100 sovereigns, eight subscribers, at 10 sovereigns each, with 20 added fur horses of all ages, three miles, and *won* the same, carrying 126 pounds; beating *Canteen* (126 pounds,) *Magistrate* (91 pounds,) and Mr. Watts' filly out of Manuella, (91 pounds.) A very well contested race.

The above are all the races of Serab. After this period he never started again, but was sold to Admiral Coffin, to go to America.

Gentlemen breeders are respectfully invited to examine this horse, and they are informed he will cover at the price of $30 and $1 to the groom for each mare for the season. Good pasturage will be provided for mares, and every attention paid to them; but escapes and accidents at the risk of the owners of the same.

For any further particulars application to be made to Charles Henry Hall, of New York, or John Snedeker, Union Race Course. THOMAS HARRISON.

Jamaica, Long Island, March 1829.

GRAPE VINES.

For sale 2000 grape vine plants, two years old this Spring, consisting of the following choice kinds, viz.

Yellow Hamburg, } Very fine White German Grapes.
Gutatle, }
Meunier, or miller purple.
Powell, or Bland's Virginia, flesh colour.

Orders addressed to E. Davis, English's ferry, Camden N. J. will be promptly attended to.

Price $3, per 100—for a less number 12½ cts. each.

ALMANAC.

1829. MARCH—APRIL.		Sun. Rises.		Sun. Sets.		Length of days.		Moon Rises.	
		H.	M.	H.	M.	H.	M.	H.	M.
Saturday,......	28	5	50	6	10	12	20	1	4
Sunday.........	29	5	49	6	11	12	22	1	55
Monday,.......	30	5	47	6	13	12	26	2	42
Tuesday,......	31	5	46	6	14	12	28	3	25
Wednesday,..	1	5	45	6	15	12	30	4	7
Thursday,.....	2	5	44	6	16	12	32	4	46
Friday,.........	3	5	42	6	18	12	36	sets.	

New Moon, April 3, 5 h. 14 m. Ev.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.
No. 4, Bowly's wharf.

Tobacco.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 3.50 *a* 4.50—red, 4.50 *a* 6.50—fine red, 6.00 *a* 8.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red, 6.00 *a* 8.00—fine yellow, 10.00 *a* 20.00—Rappahannock, 2.50 *a* 3.50—Kentucky, common 3.50 *a* 5.00—wrapping, 4.00 *a* 6.00.

Flour—best white wheat family, bbl. $9.00—superfine Howard street, (sales) 7 a 7.25; city mills, 7.00; Susquehanna 7 a 7.25—Corn Meal, bbl. 2.50—Grain, best red wheat, 1.50 *a* 1.60—best white do. 1.60 *a* 1.70—ord. to good, 1.30 *a* 1.45--Corn, .38 *a* .40—Rye, .50 *a* .55—Oats, .26 *a* .26—Beans, 1.00 *a* 1.25—Peas, .55 *a* .60—Clover seed, 4.25 *a* 4.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne 37½ *a* .50 lb.—Barley, .55 *a* 60—Flaxseed, 1.00—Cotton, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alabama, .10 *a* .11 Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .12—Whiskey, hhds. 1st pf. .24—in bbls. .25 *a* 25½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 3.25; No. 2, 2.87½ *a* 3—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Baltimore cured, new, .9½ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Pork, 4.50 *a* 5—Feathers, .28 *a* 29—Plaster Paris, cargo price per ton, $5, ground, 1.25 bbl.; grass fed prime Beef, 3.50 *a* 5.00.

Marketing.—Apples, bush. 2.50 *a* 3.00; Pheasants, pair, .75; Squabs, 18¾; Rabbits, .12½; Turkies, each, 1.12½ *a* 1.25; Butter, lb. .25 *a* 37½; Eggs, .12½ *a* .15; Potatoes, Irish, bushel .50; Fowls, per dozen 3 *a* 3.75; Ducks, doz. 3.00 *a* 3.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .8 *a* .7· Pork, .6; young Pigs, dressed, .75 *a* .87½; Sausages, lb. .8; Onions, bush. .50; Beets, bush. 1.00; Turnips, bush. .25; Partridges, .6½ each; Canvass-back Ducks, pair, .75, Terrapins, 4.00 *a* 4.50 per doz; Pork, 5.50 *a* 6.00 cwt.; prime Beef, on the hoof, 5.50 *a* 6.00.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets, where Printing of every description is neatly executed.

AGRICULTURE.

INFORMATION WANTED.

Mr. Skinner: *Columbia, S. C. March 21, 1829.*

In your 51st No. March 6th, (inst.) you have an interesting article on steaming food, with a drawing of the apparatus. I wish the writer of the article had stated the cost of such an apparatus complete. As he has not, however, I take the liberty of requesting that some of your excellent mechanics, who abound in your city, would make such a statement for the whole complete, with the furnace, &c of iron, and also the difference by having these parts of copper. The apparatus being made in the best and cheapest manner possible, but such as would preclude *all possible danger of bursting the boiler*, when under the management of ignorant and very careless people. If these objects can be obtained for a moderate price, I know several of my friends who would be glad of getting it, and I would myself take one, or perhaps two. There is no doubt of the great advantages of steaming food for cattle, horses, &c.; and if the apparatus for it, in a simple, economical and cheap form, could be obtained, I have no doubt of their becoming soon in general use in this part of the country. It appears to me that such a prospect is well worth the attention of able mechanics.

I am, very respectfully, sir,
Your obed't serv't, N. H.

INDIAN CORN.

Mr. Skinner: *Gloucester Co., N. J., March 25, 1829.*

Sir,—The following method of raising Indian corn, I have found to be equal, if not better than any other I have ever tried, and the materials are within the reach of almost every cultivator.

Take three bushels of wood ashes, mix therewith one bushel of plaster of Paris, and at the time of planting let one person drop the corn and another follow him with this mixture, dropping so much as will lay on a common sized clam shell, on each hill of corn, before it is covered. I annex an estimate of the cost per acre, which you will perceive is only $1.50; and I state, with confidence, that by this method the crop will be increased from six to ten bushels per acre.

7½ bushels ashes, at 10 cents, . $ .75
2½ do. plaster, 30 do. . .75—1.50

Ten bushels to the acre, say 320 quarts, or 2560 gills, being about the number of hills in an acre, supposing the hills to be four feet three inches asunder each way. The clam shell will contain about one gill.

The land on which I made the experiment was a light sandy loam.

A New Jersey Farmer.

GROWTH OF TOBACCO IN IRELAND.

The importers and manufacturers of tobacco in England are loud in their complaints, as to the injury sustained by them, and which, they allege, government might, by its interposition, readily remove. They argue, that smuggling is carried on to a very great extent in Ireland; and that government, on seizing such tobacco, are satisfied to sell it for consumption on obtaining as much as will cover the duty. Certainly, if the crown will sell at 3s per lb. and the importer cannot afford it at less than 3s 5d, (3s duty and 5d cost,) he is, by this act of government, as completely shut out of the market, as if the smuggler had successfully run his tobacco and were to offer it at eighteen pence. The other grievance is, that a great quantity of tobacco is grown in Ireland, on which, they assert, no duty whatever is collected. This is a very important matter, not merely as affecting the importers of tobacco, but it becomes a serious question, now that Virginia does not belong to Great Britain, whether such cultivation should not by every means be encouraged. We are told that one Irish acre will produce 16,000 tran plants; that 1000 plants produce 120 pounds of tobacco; "that, last year, 130 acres of it have been grown and saved near Enniscorthy, and preparations are making to greatly extend its cultivation in the counties of Carlow, Wicklow, and Wexford." A respectable broker's circular of the 29th December, estimates the Irish growth of tobacco, last year, at 700 hhds. of 1300 lbs. each, on which, if the government obtained no duty, they gave up an amount of 140,000*l.*

When the Virginias belonged to the British crown, an act was passed to prohibit the cultivation of tobacco in England. This act continues to be enforced; but at that time Ireland had a separate parliament; and we are not aware that there was in that country, or that there at present is, any such restriction. If in this we are correct, we may presume, that neither at that nor at the present period is there a duty of 3s. per lb. or any duty whatever on tobacco so *grown* in Ireland. If it be policy, as a revenue question, to encourage importation from abroad, the revenue by such process being, perhaps, more easily and safely collected, then let the importer be fairly dealt with, and not have three formidable opponents against him. If it be ruin to him to sell tobacco under 3s 5d per lb. let him not be nosed in the market by government selling smuggled tobacco at 3s per lb.—by the smuggler, for want of government vigilance, selling at 1s 6d per lb.—and by the Irish grower selling at much less than either one or the other. If, on the other hand, Great Britain could produce equal to her wants, could not, we ask, a duty be collected in a way similar to that pursued with regard to hops? The home growth, without loss of revenue, would then benefit the English agriculturist, at the expense of him of the United States, which country, by its tariff, labours to injure this; and such a change would be of no injury to the British *shipping*, for nearly all the tobacco imported is brought in *American* vessels.

ABUNDANCE OF POTATOES IN IRELAND.

In the spring of 1821, potatoes in Ireland were purchased at the rate of 1s 4d for twenty-one lbs.; the same quantity might have been purchased this year for one half penny. A similar overflow of the staple of popular subsistence is without a parallel.

[*Quar. Jour. of Agric.*

PAYMENT IN KIND OF FARMING SERVANTS.

The attention of the rural economists of Germany has been much drawn of late to the system pursued and recommended by M. Albert, bailiff, in the dutchy of Anhalt Coethen, of paying his farm labourers by a share of produce. The system of M. Albert, which is but a return to an ancient usage, is as follows: He enters into an agreement with his labourer, by which the latter engages, for all the draught work, &c. to be done by horses, cattle, carts, &c. which are entrusted to him, and for which he is responsible. The men whom the contracting labourer calls to his assistance, to be at his own cost. For this he receives, 1st. The sixth part of the produce of grain and oleaginous plants; 2d. provender for four cows; 3d. four pigs of six months; 4th. eight picked ewes; and, lastly, a piece of land adapted for the plantation of a certain quantity of potatoes, and another for cabbages and turnips. In the same manner M. Albert entrusts the whole manual labour of the farm to another countryman, who receives in return one-eighth of the corn threshed, and a piece of land for the cultivation of potatoes and flax. To provide against the consequences to the labourer of bad harvests a minimum is fixed, below which his remuneration cannot fall. This system has been applied by M. Albert in several domains over which he has the superintendence. According to his statements, it has been attended with the most satisfactory results. Under the system before followed in the estates of Dernbourg, e. g. the annual average expenses were 1171 imperial crowns 10 gr while the produce was 1071 10, making a loss of 99 18 every year. After the adoption of the new system, the income rose the first year to 1530. In other farms, M. Albert represents his experiment to have been attended with like success.

EXHAUSTING AND AMELIORATING CROPS.

The causes which give to particular crops the character of being exhausting or ameliorating to the soil, depend either on their being allowed to mature their seed, on their particular mode of culture, which admits of the tillage of the ground during their growth, and on their yielding manure. Wheat, barley, oats, and rye, are consequently exhausting. Turnips, carrots, parsnips, beet, cabbage, and rape, if cultivated for their leaves only, are ameliorating.

In the case of the turnip, the mode of cultivation, and the quantity and quality of manure it produces, combine with the other circumstance of its not being allowed to mature its seeds, to render it one of the most ameliorating of all crops; whereas, if allowed to run to seed, it becomes one of the most exhausting. Potatoes and beans, although allowed to mature their seeds, are considered among the ameliorating crops, because they admit of being cultivated at wide intervals, and permit the ground to be tilled completely during their growth; they also yield manure. Clovers, if used for herbage, or cut early for food, are ameliorating. If cultivated for their seeds, exhausting.

[*Quar. Jour of Agric.*

FERTILIZING EFFECTS OF CHLORINE ON SEEDS FOR SOWING.

The employment of chlorine, or oxymuriatic acid, in preparing seeds for sowing, is recommended by M. Rémond, as capable of increasing the produce three and four fold what it would be in ordinary cultivation. The process is as follows: The grain to be first steeped for twelve hours in water from a river or fountain, never from a well; then to be added to the water sixteen or seventeen drops of oxymuriatic acid for every quart; the whole to be shaken together, in order that it may be well mixed. After six hours additional shaking, under exposure to the sun and beneath a glass bell; or for want of such an instrument, a frame of oiled paper, the seeds to be put into a cloth; then to be divided for the purpose of sowing, and mixed with a sufficient quantity of cinders, sand, or dry mould; after this to be sown, and the water in which they were soaked thrown over the ground which covers them. It is also recommended, when practicable, to water, at intervals, the plants with the acidulated water of oxymuriatic acid, in the proportions of that used in the steeping the seeds, in order to keep up the activity of their vegetation, and to favour the development of the plant.

[*Bull. Univ*

USE OF THE ROLLER ON GRASS LANDS.

In no branch of husbandry is the roller more an implement of utility, than in the cultivation of grass. It renders the soil compact and solid; it encourages the growth of the plants, by bringing the earth close to every part of the root; it assists in filling up and levelling any inequalities in the surface of the field, thereby preventing surface water from remaining stagnant, and eradicating the grass from particular spots; and it tends to hinder the drought from penetrating, which is an effect of the utmost importance. In fact, a grass field cannot be too often rolled; and it is not going too far to assert, that the application of the roller in autumn, to prepare the roots for resisting the winter frosts, and in spring, to firm them after these frosts, every year, while the field remains in grass, will amply repay the expense.—[*Transac. of Highland Society.*

RUTA BAGA TURNIPS.

Mr. Skinner: *Baltimore County, March* 30, 1829.

Sir,—I send by bearer two Ruta Baga Turnips, which have remained with others to the extent of an acre of ground in the open field all winter without any covering whatever—you will find them perfectly sound, and not in the least injured by frost, and as we have had some pretty hard weather, I think you must agree in opinion with me, that this quality of withstanding severe frost increases their value considerably; I am now pulling and feeding my cows with them in as perfect a state as they were last fall, except that the leaves have decayed, to make up however for this deficiency, they have increased in size—you will perceive that about one half the turnips has been exposed above the ground, and yet that part is in as sound a state as the other which was covered with earth. I make this communication under the hope that it may induce a more extensive cultivation of this valuable root, and thereby increase the comfort of that often impoverished and much abused animal the cow. I have regularly raised Ruta bagas for the last ten years, and never fail having a good crop, even when sown after small grain, by manuring and ploughing in with the stubble, the dung used should be well rotted, or spent ashes answer well. I sow broadcast, and have found the best season to be from the middle to the last of August, and treat them by hoeing in the same manner as the common white turnip, they should be left at the last hoeing, at least a foot apart, but more distant will be better, for if the ground is rich and in good order, the tops will spread very luxuriantly.

Yours respectfully,

H. T.

(From the New York Farmer.)

ON LAYING DOWN GRASS LAND,

In answer to the query of "Rusticus ex urbe."

Sir, In vol. 2, number 1, of the Farmer, "*Rusticus ex urbe*" enquires, "Is the general practice of sowing only one or two kinds of grass seed, in laying down grass lands either for pasture or mowing, the best and most natural?"

Timothy, or Meadow cat's tail grass, *Phleum pratense*, and red clover, *Trifolium pratense*, are the grasses most generally cultivated in the middle and northern states. The former is a native, and favourite of this portion of our country. It is most productive upon low and moist ground; but it succeeds well with clover upon upland. To one who has sowed these grasses alone, and together, and experienced the result of both modes of cultivating them, I think there will remain no doubt, but that it is best, to sow both together.

I have sowed clover alone, and it became so lodged before it was fit to mow, that it was almost impracticable to cut it, and a considerable portion of it was decayed; the roots also were exposed to, and greatly injured by, the frosts of the ensuing winter and spring. I next sowed timothy alone, and found that it was scorched and injured by the heat of the summer.—Since that period, I have uniformly sowed both together, and with good success. For mowing I sow eight pounds of clover seed and four quarts of timothy to the acre; and upon pasture land, the same quantity of timothy, and twelve pounds of clover to an acre. The ordinary yield of hay, is from ten and a half to three tons to the acre. And both horses and neat cattle, the best judges of good grass and hay, prefer this combination to either kind alone.

It has been observed by some farmers, that these grasses ripen at different times, and therefore ought not to be cultivated together: in my opinion, there is but little weight in this objection. It may have arisen from the manner of sowing. Many sow the timothy in the fall, and harrow or brush it in with the grain, and the clover in the spring. My practice is to mix both together, and sow in the latter part of March, or early in April. The first season, and a few weeks after the grain is cut, I pasture it lightly; after this, reserve for mowing such as is designed for meadow, excluding all animals from it in the spring: and by the time the clover blossoms begin to turn brown, the timothy is in full bloom, which I consider the best time for cutting both; and as the clover is sustained by the timothy and kept from lodging, the whole may be cut with ease, and without loss of any part. F. J.

(From the Southern Agriculturist.)

TO RICE PLANTERS AND RICE MILLERS.

February 17, 1829.—The subscriber has been informed, that a spirit resembling whiskey, can be distilled from the common rice flour. His informant is Mr. Latham, distiller, Hasell street, who saw the fact ascertained by his brother during the revolutionary war. Mr. Latham is now upwards of eighty years of age, and as it is nearly half a century since the experiment was tried, he cannot speak positively as to the result, but the impression on his mind is, that a bushel of flour will produce a gallon of spirit! Is this the arrack of the east?

JAMES GREGORIE,
Chairman Com. on Foreign Rice Mills, Ag. Society So. Car.

By the Editor.—We place upon record this further proof of the salubrity of Charleston. Mr. Latham, at his advanced age, stated to us that he can do as good a day's work as ever. He regularly gets up at three o'clock, lights his fire, sets his still at work, and has his rum ready to be drawn off by the time his assistant comes.—J. G.

HORTICULTURE.

THE GRAPE VINE.

Mr. Editor:

As the season of the vine is now at hand, I think it may be of some use, or at least some interest, to many of your readers, to have a few short rules and observations to direct them in the culture of that valuable and beautiful plant. These I have extracted from French books, and especially from the "Ecole du Jardin Fruitier," a work of considerable merit, and of great authority in France, where the grape is raised of so fine a quality, and in such abundance. I have added some remarks of my own, or from other sources, when the subject seemed to require them. An Amateur.

NOMENCLATURE.

Our language is somewhat deficient in definite terms for the various operations performed upon the vine. It will therefore be proper for me, before proceeding further, to establish the meaning of the words I shall have occasion to employ.

The words *pruning*, *lopping* and *trimming*, are commonly used indifferently to express the same thing and different things. There are various distinct operations to which they may be applied, and are applied; and much confusion is the consequence.

In the course of this paper, I shall use the term *pruning*, for that cutting which the vine receives in the fall, after it has shed its leaves, or in the spring, before it has recovered them. *Lopping* I reject altogether, as meaning a more violent operation than those regularly performed upon the vine. *Trimming* I shall apply exclusively to the operation, performed several times during the summer, of plucking off the useless or injurious shoots.—Thus, *pruning* will correspond with the French word *tailler;* and *trimming*, with *ébourgeonner.*

PROPAGATION.

Of the modes of propagating the vine I shall say nothing, as they are generally well understood. I will observe, however, that my own experience has convinced me, that a cutting with *one* bud or eye is as likely to succeed, and will produce at least as fine a plant, as a cutting a foot or eighteen inches long; especially if it be planted in a pot, early in March, and placed in a hot bed until the warm weather. In July it may, with perfect security, be turned out of the pot into the place, in the open ground, where it is to grow. But hot beds and flower pots are not indispensable. It will do as well to plant the cuttings in boxes at the usual time for the open ground, and place them in some situation where they may be sheltered from the excessive heat of the sun. In the fall they can be transplanted to their destined places. One of the advantages of this mode of propagating by cuttings is, that an ordinary cutting will supply you with ten or twelve plants instead of only one; a consideration of some importance when you have only one cutting of a rare species of grape.

PRUNING.

The proper time to prune the vine is in March, earlier or later in the month, according to the state of the weather. To prune too early, is apt to make the buds shoot prematurely, before the frosts are over, and to prune too late, exposes the plant to an injurious bleeding, or loss of sap. If you prune in the fall, you run the risk, should the winter be severe, of having most of the bearing branches destroyed. In this city and neighbourhood, people commonly prune too early in the spring. Most persons have already pruned theirs a week or a fortnight ago, before the late hard frosts and heavy falls of snow. Mine are not yet pruned, (March 23d,) and may not be, if the weather continues unfavourable, for a week or ten days to come.

In pruning, cut half an inch above the bud, to prevent the branch that will sprout from it from being easily blown or broken off. The little stump that remains may be removed the next year. Also cut slopingly, and on the side opposite to the bud, that the sap which exudes may not run down upon it and injure it.

A vine should be pruned according to its *age*.
1st year; leave one bud.
2d year; leave two buds.
3d year; leave three buds.
4th year; leave four buds.
5th year, and afterwards; leave five or six buds.

I speak only of those vines that grow in the open vineyard and are staked, and not of those spread on trellises; although most of these rules are applicable to the latter also. But they require other attentions, and deserve a separate notice. In the third year, vine dressers generally leave a short *side-shoot* to the principal stock, with one bud on it; in the 4th year, a side-shoot with two buds; in the 5th year, one with two or three buds. Indeed, if the vine be of mature age and exceedingly vigourous, they often leave the principal branch from three to five, or six feet long, according to its strength, with all its buds; and, at the same time, a side-shoot a foot long. In some soils and situations, the vine is so vigourous that it would exhaust itself in barren length of limbs, and produce no fruit, if you pruned it to so few buds as those prescribed for ordinary cases; and you must therefore weaken and tame it, as it were, by loading it with fruit.—Each one must judge for himself, from observation, when these precautions become necessary. When a vine betrays too much luxuriance, it is often brought into bearing, by leaving five or six of the largest of last year's branches, one of them five or six feet long, and the others with from one to five or six buds upon each, according to its apparent strength. In those cases, on the contrary, where the vine is feeble, two or three branches, with from four to two buds on each, will be enough.

It is the opinion in France, that the vine should be kept *low*, in order that its fruit may receive the benefit of the heat reflected from the ground; and that it should be suffered to grow and bear high, only in the hotest climates. In some countries, it is trained upon the trees. I have seen it, in the plains of Lombardy, hanging from the elm or the poplar, in festoons from tree to tree, for great distances, covered with loads of fruit. But the trees are there regularly trimmed and topped for fire wood, and therefore give so little shade as not to injure the grape.

STAKING AND TYING.

As soon as the vine is pruned, it must be staked with poles of the height which you intend to allow the vine to attain; and the vines must be tied to them. By staking later, after the buds have shooted, you may break off many of the young branches.

TRIMMING.

About the middle of May, or somewhat later, according to the season, it will be necessary to trim your vines.

You will find that they have produced many young branches, and that in some instances several shoots have sprung from a single bud; and you must therefore reduce each vine to that allowance of branches which you had assigned it at the time of pruning, according to its age, or its age and strength both considered. If this be its first year, carefully pluck or pinch off all the shoots but one, leaving that which appears most thriving; *if its second year*, of all but two; and so on, according to the age and vigour of each.

This operation must not be performed too soon; for, if it be, the vine will throw out a still greater number of suckers or shoots than it had before. It is not difficult to ascertain, by inspection, when the shoots have attained the size at which they may be securely removed. Do not hesitate to remove some that show fruit; for, if that fruit were left, it would only diminish the quality, and perhaps even the quantity, of the whole crop.

After trimming, immediately tie the shoots to the stakes.

About the first of June, or somewhat later, according to the season, and to the precocity and vigour of the plant, you must again tie the shoots to the stakes, for they will have grown much longer than when you tied them last; and give them a second trimming, by pinching off such as have started from the axillas of the leaves.

About the first of July, or somewhat earlier or later, according to the circumstances above alluded to, give them a third trimming and tying, taking off all useless shoots. In France, it is usual at the same time to break off the top of the vine, at a joint, about the height of the stake, or espalier or wall. But many experienced persons think it had better not be done in this country. If done at all, it should be done late; and I may say, generally, of the various trimmings, that they had better be done later than earlier than I have indicated; for vegetation is so luxuriant in this climate, that the vine is much more apt, than in Europe, to push new shoots after being deprived of the first.

It will be necessary, *during the whole summer*, to remove from time to time, any new shoots that may appear.

TRELLISES.

To prune a vine trained on trellises or espaliers, or walls, you untie and loosen from the trellis all the younger branches, leaving the older and principal branches attached. Then cut off all the dead wood, knots, little stumps, useless twigs, &c. and remove dead leaves, cobwebs, snails, insects nests, &c. The best way of training a vine, is to stretch out its two principal limbs, like arms, horizontally, to the right and left, about a foot from the ground. This, I will suppose, has been done in former years, and that the vine remains divided in that way.—You will permit each of these arms to advance, every year, from three to six feet, according to the strength of the vine, and you will prune to the proper length, accordingly, the extreme or leading shoots. If those shoots, or one of them, should be killed or materially injured, suppress the failing one entirely, and cut off the principal branch itself, where it affords the next shoot, thereby making the latter the leading one. On each of these principal branches, or arms, retain a row of *upward* shoots, at the distance of about a foot from each other, each of which prune to three, four or five buds, according to circumstances. Those that are very strong and spring from a vigourous plant, may have a side-shoot also left upon them, and sometimes two, one upon each side, with one or two buds each. All the upward shoots, between these that are to be left at a foot's distance, must be cut off, as also all downward and lateral shoots.

The same rules for trimming apply to trained vines as to staked ones.

If the espalier, trellis, or wall, be long and high, and there be several vines planted against it, each must be trained in the manner just prescribed.—But that they may not interfere with one another, they need not be permitted to spread so much. It will be necessary, also, to give them different degrees of elevation, so that they may be one above another in stories, as it were, and thus each perform its part in covering the trellis.

CASTOR OIL.

J. S. Skinner, Esq.

The process of making castor oil having heretofore been kept a profound secret, it is deemed a matter of considerable importance to the interests of agriculture that it should be made known. Should you be of the same opinion, you will doubtless give publicity to this article in the Farmer. The process has been discovered by a friend of mine, after numerous experiments and great perseverance;—after, also, I had applied, in his behalf, to numerous persons, and some engaged in the manufacture of oil, for information to enable him to make oil from the bean raised on his plantation; but which information was always withheld, they generally saying "*it is a secret.*" My friend having at last found out both the common mode, and a new and much better one, he has authorized me to publish them to the world, both for the benefit of the public, and in *reciprocation* of the *liberality* evinced by the manufacturers towards him. The friend to whom I allude, is Doctor Robert R. Harden, of Watkinsville, Georgia. He is an extensive planter, and three or four years ago, wishing to vary his crops, obtained some Palma Christi seed. He succeeded in producing the bean, and in expressing the oil, but he could not clarify it, or free it from its opaque and cloudy, or rather milky appearance.—He then wrote to me for information to enable him to clarify the oil, not dreaming that so important a thing was kept a secret. This was the commencement of our endeavours and experiments, the result of which I will now proceed to give, remarking, that the whole credit of the new mode, with wheat flour, belongs to Dr. Harden. I will also remark, by the way, that Dr. Harden made several hundred bottles of castor oil last fall by the new process, which was superior to any he had ever before seen, and is now able to supply the article in the interior of Georgia, by retail, much cheaper than it is usually sold in the sea ports. The following extracts from Dr. Harden's letter to me contain a description of both the old and new processes.

Gideon B. Smith.

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Extracts from a letter from Dr. Robert R. Harden, of Georgia, to Gideon B. Smith, of Baltimore.

"Oil, as pressed from the bean, is pure, saving a degree of moisture natural to it, and such foreign substances as may get in it during expression.—There is no mucilage in it. As it is expressed, it will not keep, because it has water in it; it cannot be boiled to clear it of foreign substance, because there is so little water in it that it will burn. Now, observe the whole secret of clarifying is, to clean it of the foreign matter it receives during expression, and to free it entirely of water. All we hear of mucilage is a mistake; there is none.

"The processes I have used are as follows: Take the oil as expressed; put a little oil of vitriol in it; agitate it powerfully; then throw in powdered chalk to neutralize the acid; let it settle, and it will be clear. 2d. Put the oil in an open vessel; cover it with finely powdered chalk; sprinkle some oil of vitriol on the chalk, and it will cause the chalk to sink to the bottom, the oil being left clear. Now, in both these processes, oil of vitriol, although itself a fluid, has the property of taking the water from the oil, the chalk combines with it, forming the *plaster of Paris,* which settles to the bottom. In this way the most of the North Carolina oil is made. But the oil thus prepared is not as good as the next plan I shall describe; the taste is injured; and I think the effect injured also; besides, it takes time, and in the large way must be tedious."

"We will suppose we have sixty gallons of oil to clarify, and a still that will hold sixty gallons. Put one half in the still and fill with water; as the oil cannot be burned while water is in it, put a strong fire and start it to boiling gently; a quantity of dirty scum will soon rise; skim it off as fast as it rises, and so continue till no more will rise, taking care to keep it from boiling over, adding more water now and then, that it may be kept full, for greater convenience in skimming. After a while the oil will become perfectly clear, and a beginner would think the work done; but he will soon find his mistake. When the oil is perfectly clear, and no more scum will rise, set a barrel on two benches eighteen inches or two feet high, the bung being up; dip up the oil and pour it into the barrel; fill up the still with water now and then, for greater convenience in dipping out, and avoid dipping any, or as little as possible of water with it. Now fill the still with clear water, and treat the other half in the same way; when clear, put it in another barrel fixed as the other, unless the first will hold it all. The still should now be made perfectly clean. As soon as the oil in the barrels becomes cold, it will lose all its transparency, become opaque, thick and look dirty; it will look very bad. Now bore gimblet holes in the bottoms of the barrels, and a quantity of water will run out; let it run till the oil begins to run out; then stop the holes. Water will continue to collect in the bottoms of the barrels and should be let out in this way for two or three days, or till no more water collects. It is a matter of consequence that every particle of water that can be let out in this way should be got rid of, as it saves much time and labour. When all the water is in this way discharged, put the whole of it again into the still, (observing that the still must not be hot, or it will take fire with alarming violence;) and make a slow fire of green wood, that a steady heat may be kept up; the still should be kept even full, or nearly so, dipping out some when in danger of running over, and adding more when it settles down. A scum will soon collect on the top, and the oil will become very clear; skim off as fast as any scum collects until no more will rise. Now sprinkle in, little by little, three or four quarts of good wheat flour, stirring it with a long stick at the same time. Now once more a scum will rise as fast as ever; it should however be stirred for perhaps ten minutes; the oil, as soon as the flour is put in it, will become *beautifully clear;* now skim off this last scum as fast as it forms, and as long as it continues to collect; when no more collects, the oil is nearly done; it will look beautiful, and be almost without taste or smell. As it is nearly clear of water the fire must be attended to, or it will burn. Dip some out in a vial, hang it in the air; when cold, if it be clear, it is done; if it become opaque, the fire must be continued. In this way keep trying with the vial till it continues clear when cold; and then, to be sure, it would be well to keep a slow fire under the still for five or six hours longer. When it gets perfectly cold, if it be clear, it is done; if it become opaque, the fire must again be started under the still and kept up till it is clear. Then strain it through a bag made of several folds of blankets; put it in barrels and bung it up tight. If the barrel has the least moisture in it, the oil is spoiled.—Oil prepared in this way is perfectly pure; it is as pleasant tasted as olive oil. Why wheat flour has such an effect, I will not attempt to explain; but certain it is, I know of no other way to make good and pure oil. You will observe, the whole process is to deprive it of all foreign substances that get in it during the process of expression, and to remove every particle of water from it.

"To prove I am correct, try this experiment: fill a vial with one half good oil and the other half warm water; shake them together well and the oil will become opaque; hang it up before the fire till the water boils, and the oil will become clear; let it get cold and the oil will again become opaque; let it hang three or four days and hang it before the fire; keep it for some time only warm, and it will continue clear when cold; again hang it before the fire and let it boil; when cold, it will again be opaque. When only warmed before the fire, all the water in the oil evaporates; but let it boil, and the steam passing through the oil leaves a moisture in it. Take bad oil, add some wheat flour to it and hang it before the fire; as it cannot be skimmed, when cold the filth will settle to the bottom and the oil be beautiful. This experiment will prove that the white colour does not depend upon any mucilage in the oil; it is only the effect of oil and water uniting."

"N. B. All the scum that is skimmed off should be put in a pot and boiled awhile; then suffered to get cold and poured into the next oil to be clarified; boil it till it gets clear; the dirt will settle."

QUINOA.

Linnæan Botanic Garden, near New-York, }
J. S. Skinner, Esq. *March* 17, 1829. }

Having observed in your paper of the 13th inst. a statement of J. C. S. respecting the Quinoa seed from South America failing to vegetate, it may be satisfactory to that gentleman to be informed that many species of seeds, especially if they are old, which would not vegetate if planted in the common way, have succeeded after being immersed in hot water. I have practised it with success for several years past, and was first induced to try it from an experiment made by one of my neighbours who was desirous of raising a quantity of locust trees, *robinia pseud acacia,* to plant on his farm for timber, the seed being then very scarce he wished to make the most of it, and had water made to boil and after cooling a little poured it on the seed and left them thus immersed until morning, when the water was poured from it a proportion of the seeds were swelled to double their usual size; the whole were then spread on a table and persons employed to select every swelled seed, the ground being well prepared they were immediately planted in rows at regular distances, this was repeated for fourteen successive days before all the seeds had swelled—the seeds came up in a *few* days after planting. I saw them growing and there scarcely appeared to be a seed that failed, on counting the rows and the number in each row he found he had thirty-six thousand trees from three pooods and a quarter of seed.

I have received from J.R Poinsett, Esq. our Ambassador at Mexico, for several successive years a great variety of Mexican seeds, and among them the celebrated *cherostemon platanoides* or hand plant of Mexico, the seeds were given to the gardener who attends to the Greenhouse department and were planted in pots and well attended to, but only one plant came up, after waiting two years, and no more of the seeds vegetating I had the seeds taken out of the earth and water nearly boiling hot poured on them, they were then planted and immediately a number of the seeds came up and produced fine thrifty plants. I have at least fifty species of rare Mexican trees and plants which have been kindly contributed by Mr. Poinsett, among which are three species of Mexican Oaks, all which are *evergreen.*

If you receive from your correspondents in South America any more seed of the Quinoa you will confer a favour by forwarding a little of it to,

Your obedient servant,
William Prince.

INTERNAL IMPROVEMENT.

BALTIMORE AND OHIO RAIL ROAD.

Copy of a letter from the Engineers of the Baltimore and Ohio Rail-road Company, dated

Darlington, Durham County, }
Dear Sir: *January* 26, 1829. }

Since our last we have been principally engaged in the examination of Rail-ways in the vicinity of New Castle upon Tyne, in observing the effect produced by the different kinds of motive power used, and in collecting facts from observation and inquiry relative to the construction, cost and efficiency of Rail-roads as a mean of transportation. During the holidays, when the works above alluded to, were closed, we took the opportunity to visit Scotland, intending to have completed our examinations in that quarter before our return; but the inclemency of the season confined us to one Rail-road, (an important one, now constructing from Dalkeith to Edinburgh,) till the period arrived when we thought we could, with more advantage, resume our examinations in England.

We have the gratification to assure you that experience daily developes the great advantages resulting from the introduction of Rail-roads; and as the best proof of the increasing confidence of a discerning public in their adaptation to the purposes of general trade, several of this kind have recently been projected. The expectations of proprietors in those already completed have evidently not been disappointed, and Stockholders in the Liverpool and Manchester Rail-way are so sanguine of profit, that even now there is an advance of forty per cent. in the price of shares, and yet this Rail-way must compete with two canals already constructed between those places!

The question which was in agitation when we last wrote, respecting the relative advantages of Stationary and Locomotive Engines, remains yet undecided with the Directors, but it is of no other consequence to us than as tending to elicit able discussions on either side, with the respective merits of which we may expect to be made acquainted. We have witnessed the successful application of power by both modes on diverse Rail-ways, and in one instance have seen Stationary Engines solely used for several miles.—They are confined, however, principally to the passages of inclined planes, and Locomotive Engines are generally preferred on all inclinations adapted to their use; and as an evidence that the operation of the latter is by no means limited to *a level,* they have been introduced where the ascent is as much as 72 *feet per mile.*

On the Killingworth Rail-road, part of which has an inclination of 50 feet per mile, a Locomotive Engine of eight horse power descends with a train of twenty loaded wagons and returns with the same number of empty ones—each wagon weighing about 1¼ tons, and containing 53 cwt .of coals; in all 4 tons for each wagon. On the Stockton and Darlington Rail-way, we have *seen* a Locomotive Engine of ten horse power, descend a slope of ten feet per mile with a train of twelve loaded wagons at 15 miles per hour, and return with the same *wagons* loaded at the rate of ten miles per hour—the weight of each wagon averaging 25 cwt. and containing 53 cwt. of coals[*]—and Mr. Hackforth informs us, it is by no means unusual for a Locomotive Engine to take 24 loaded wagons from New Sheldon to Stockton, a distance of 20 miles—return with the empty ones, and afterwards proceed with a like number to Darlington, 8 miles; and return with the wagons to New Sheldon in 12 *hours.*[†] Indeed the same Engine has travelled with a train of 24 empty wagons from Stockton to Darlington, 12 miles, in one hour. The whole distance is ascending—*a small portion as much as 72 feet per mile* and a considerable portion of it 36 *feet per mile.* Such are the statements which have been made to us, and which in general *we know to be facts;* but Mr. Hackforth having been so polite as to assent to our wish to make some experiments on the performances of the Locomotive Engine, we shall to-morrow accompany him for that purpose throughout the Stockton and Darlington Rail-way. We shall then also have an opportunity to learn his views respecting the construction of Locomotive Engines, in the management and use of which he is peculiarly familiar.

On the Bolton and Leigh Rail-way there is said to be a Locomotive Engine of the manufacture of Messrs. Stephenson & Co. of New Castle on Tyne, whose performance is very satisfactory, and as we probably shall see it on our way to Liverpool we think while there, from our previous observations of the practical operation of different Engines, we may expect to be able to order one embracing the most recent improvements. We also think it may be as well that we should have made, preparatory to our return, at least one set of wagon wheels and such fixtures generally as we may think adapted to our Road.

From what we have now said of the inclinations on which Locomotive Engines are used in this country, it is hardly necessary to add that all the Engineers with whom we have conversed think they may be advantageously introduced on our Road; but we shall be so much the better able to judge of the expediency of this hereafter, that it is sufficient to have stated their opinions in connexion with the facts on which they are founded. We observe that the Directors of the Stockton and Darlington Rail-way compute that a saving of 30 per cent. in the haulage results from the use of Locomotion on their Road—or they suppose it that much less than if it were done by horses.

As it regards the location and construction of the Rail-roads we have seen, it does not occur to us that we need at present say much; it may suffice that we state *we remain satisfied with the location of our Road*, and are confident its construction as proposed will be such as to secure the advantages ascribed to similar works. We have seen at least as great difficulties overcome as any we shall encounter, and we know that we shall be exempt from some most fruitful sources of expense inseparable from the construction of such works in this country.

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[*] This is conveying an aggregate weight of 45 tons, 10 miles per hour.

[†] Thus travelling a distance of 56 miles in 12 hours, and carrying this immense weight.

Before concluding this, it may be satisfactory to add, that we have seen both Locomotive and Stationary Engines operating with much less disadvantage in curvatures than we had apprehended, and that the admission of curves in *inclined planes* is almost as common as in other parts of the road.

Very respectfully, we are, sir,
Your friends and servants,
J. KNIGHT.
WM. G McNEILL,
GEORGE W. WHISTLER.

To Philip E. Thomas, Esq.
President of the Baltimore and Ohio
Rail-road Company.

LADIES' DEPARTMENT.

SINGULAR MARRIAGES.

Lady Lucy Meyrick was by birth the Lady Lucy Pitt, daughter to the Earl of Londonderry, and sister to the last who bore that title. She was of course nearly related to all the great families of that name; and losing her parents very early in life, was left under the guardianship of an uncle, who lived in James street, Buchingham-gate. This house was a most singularly uncouth dismal dwelling, in appearance very much of the Vanburgh style of building; and the very sight of it would justify almost any measure to get out of it. It excited every one's curiosity to ask, What is this place? What can it be for? It had a front of very dark heavy brick work; very small windows, with sashes immensely thick. In this gay mansion, which looked against the blank window side of the large house in St. James's Park, twenty years ago Lord Milford's, but backwards into a market-gardener's ground, was Lady Lucy Meyrick to reside with her uncle and his daughter, a girl a little older than herself. The young ladies, who had formed a strict friendship, were kept under great restraint, which they bore as two lively girls may be supposed to have done. Their endurances soon reached the ear of two Westminster scholars of one of the Welch families of Meyrick, who, in the true spirit of knight errantry, concerted with them a plan for escaping, which they carried into effect. Having gone thus far, there was nothing for the courteous knights to do, but to marry the fair damsels to whom they had rendered this essential service;—and for this purpose they took them to the Fleet, or to May-Fair, in both which places marriages were solemnized in the utmost privacy. Here the two couple presented themselves; a baker's wife attending upon the ladies. Lady Lucy was then, and to the end of her life, one of the smallest women I ever saw; she was at the same time not more than fourteen years of age; and, being in the dress of a child, the person officiating objected to performing the ceremony for her. This extraordinary scrupulosity was distressing; but her ladyship met it by a lively reply—that her cousin might be married first, and then lend her gown, which would make her look more womanly; but I suppose her right of precedence was regarded, for she used to say herself that she was at last married in the baker's wife's gown. Yet even now, if report be true, an obstacle intervened; the young ladies turned fickle; not indeed, on the question "to be or not to be" married, but on their choice of partners; and I was assured that they actually changed—Lady Lucy taking to herself, or acquiescing in taking, the elder brother. What their next step was to have been I know not; the ladies, who had not been missed, returned to their place of endurance—the young gentlemen to school, where they remained, keeping the secret close. When the school next broke up, they went home; and probably, whilst waiting for courage to avow, or opportunity to disclose, or accident to betray for them the matter, a newly arrived guest fresh from London, in reply, perhaps, to the usual question—What news from town? reported an odd story of two Westminster scholars, names unknown, who had (it was said) married two girls in the neighborhood of the school The countenances of the two lads drew suspicions upon them; and, confession being made, Lady Lucy was fetched to the house of her father in-law. His lady, seeing her so very much of a child in appearance, said, on receiving her, in a tone of vexation—"Why, child, what can we do with you? Such a baby as you are, what can you know?" With equal humility and frankness Lady Lucy replied—"It is very true, Madam, that I am very young, and very ignorant; but whatever you will teach me I will learn." All the good lady's prejudice was now overcome; and Lady Lucy's conduct proved the sincerity of her submission. She lived seven years in Wales under the tuition of her mother-in-law—conforming to the manners, tempers, and prejudices of her new relations.—*Miss Hawkin's Anecdotes.*

A FINE WOMAN.

It is very pleasant to observe how different modern writers and the inspired author of the book of proverbs, describe a fine woman. The former confine their praise chiefly to personal charms and ornamental accomplishments, the latter celebrates only the virtues of a valuable mistress as a useful member of society; the one is perfectly acquainted with all the fashionable languages of Europe; the other opens her mouth with wisdom, and is perfectly acquainted with all the uses of the needle, the distaff, and the loom; the business of one is pleasure, the pleasure of the other is business; the one is admired abroad the other at home. Her children rise up and call her blessed, and her husband also praiseth her. There is no name in this world, equal to this, nor is there a note in music half so delightful as the respected language with which the grateful son or daughter perpetuates the memory of a sensible and affectionate mother.

COLD WATER, OR HEALTH AND BEAUTY.

A Vermont lady, the papers say, lately cured herself completely of a very uncomfortable liability to take cold, by bathing her face, neck, and arms, early every morning, with pure cold water profusely applied. Besides guarding her health, the application, it is averred, greatly heightened her beauty; and we understand it is getting to be generally believed in many parts of the *country*, (and we do not see why it should not be equally efficacious in *town*,) that soft, cold, clean water, applied early in the morning, is one of the finest cosmetics ever used. Rouge, pearl powder, cold-cream, and all the knick-nackery of the perfumer, are said to be nothing at all to pure water for clearing the complexion and brightening the eyes. The hint is supposed to have been taken from a garden, or meadow, by some lady, who accidentally observed the effect of the cool dew of the morning upon the roses and lilies—the glow and the fragrance it gave to their blossoms, and the firmness and freshness it imparted to their stalks and leaves. We have no great faith in catholicons and panaceas, but we do think this looks more like one than any we have seen noticed; and if, as advised in other cases, its application be accompanied with a little attention to regimen, just enough to secure temperate meals, regular exercise, in the free air, and sleep o' nights, from ten or eleven till five or six o' the clock, we believe it would come as near to an universal specific as any thing may come, in a world so remarkable as this is for adversity of circumstance and vicissitude [*Troy Sentinel*

A mistress of arts is generally an overmatch for a master of arts.

SPORTING OLIO.

EXTRAORDINARY TROTTING MATCH.

This match, on which 200*l.* to 100*l.* were bet that a gentleman named Meloy did not find a horse or a mare to trot 100 miles in ten successive hours and a half in harness; a feat which had never been done in this country, was performed on a five mile piece of ground on Sunbury Common, on Monday last. The horse chosen on this occasion was an American by birth, about fourteen hands high, and twelve years old. The distances were performed thus:

	H.	M.
First twenty miles	1	59
Taken out and in stable . . .	0	8
Second twenty miles . . .	1	59
Taken out and in stable . . .	0	8
Third twenty miles . . .	1	58
Taken out and in stable . . .	0	11
Fourth twenty miles . . .	1	42
Taken out and in stable . . .	0	8
Last ten miles but	0	52
Stopped to wash mouth with gruel, which he took with good appetite	0	2
Last ten miles	1	0
	10	7

Thus performing the task in 23 minutes within the time allotted. On being groomed and furnished with a fresh supply of gruel, the extraordinary animal was as playful, and seemed to go to work on the hay with as good an appetite, as if he had been merely performing an ordinary task.

[*London Sun.*

Information with regard to Blood horses Wanted.

I would thank F., or some other person conversant in such matters, to furnish for publication in the Farmer, an account both of the pedigree, performances, and description, of Mr. Hall's horse called "Union" of "Leonidas," and a horse that stood on the Eastern shore of Maryland, called Moscow. The subscriber, who has so often taken pleasure in furnishing such information to others, will it is hoped, receive the like courtesy, from those who are able to extend it to him.

Author of "Annals of the Turf."

March 23, 1829.

WHITE HOOFS IN HORSES.

Even in a wet soil and climate, white hoofs are more brittle and more liable to accident and lameness than black ones; and in the stony and more arid soils and climates, white hoofs do not stand near so well, and are much more liable to break and to contract than those of a dark colour; and in point of fact, horses having white legs and feet, do not bring so much money as those of precisely the same description which have them not.

[*Quarterly Journal of Agriculture.*

MISCELLANEOUS.

CANDLES.

Under this article, Ure's Chemical Dictionary states—(a part only of the table is taken:)

Number in a pound.	Duration.	Consumption in an hour in grains.	Econom. of light
Ten mould,	5h. 9m.	132	68
Ten dipped,	4 36	150	65½
Eight mould,	6 31	132	59½
Six do.	7 2½	163	66
Four do.	9 36	186	89

It thus appears from Dr. Ure's experiments, that eight-moulds are the most economical for those who cannot afford *more light at more expense.* Ure also states that two pounds of oil, value 1 shilling, in an Argand lamp, are equal, in illuminating powers, to three pounds of tallow candles, which cost about three shillings. Thus, as a matter of economy, we should burn good oil, or tallow candles, eight to the pound.

Every man is in danger of becoming a drunkard, who is in the habit of drinking ardent spirits on any of the following occasions: 1. When he is warm. 2. When he is cold. 3. When he is wet. 4. When he is dry. 5. When he is dull. 6. When he is lively. 7. When he travels. 8. When he is at home. 9. When he is in company. 10. When he is alone. 11. When he is at work. 12. When he is idle. 13. Before meals. 14. After meals. 15. When he gets up. 16. When he goes to bed. 17. On holidays 18. On public occasions. 19. On any day—or, 20, On any occasion. [*Salem Gazette.*

POPULATION OF EURORE, AND OF THE UNITED STATES.

"The actual population of Europe, is at least, two hundred millions, and it is not likely to be overrated at two hundred and five millions."—*Malte Brun, Vol. V. page* 84.

"The mean annual increase of the whole European population, cannot, according to the lowest estimation, be less than one million."—*Ibid. Vol. VI. page* 87.

"It has been feared lest the population of Europe become so great before the lapse of no very distant period, that subsistence, or even sufficient space may be wanting for its inhabitants; but it is probable that several ages must elapse before such an evil can excite serious alarm. *The soil of Europe, might afford enough food for a* THOUSAND MILLIONS OF INHABITANTS."—*Ibid. Vol. VI. page* 87.

In every case where it can be done with propriety and effect, I am desirous to form comparative estimates of the population of the United States and Europe. The manners, religion, language, legislation, and geographic position of Europe afford the best elements of comparison, with the United States; and the now ascertained fact, that the population of Central and Northern Europe, though already dense, is rapidly augmenting, renders the subject in a very high degree interesting.

From late investigations, made in Great Britain and France, and republished in the United States, I beg leave to make the following extracts as textual matter; for some comments of my own.

The surface of the French soil amounts to 52,562,300 hectares, or 154,000 square geographical miles. It may be divided as follows:

Arable Lands - -	22,818,000 hectares.
Vineyards - - -	1,734,600
Woods - - -	7,072,000
Pasture land - - -	3,525,000
Meadow land - -	3,388,000
Wastes, marshes, roads, &c.	14,024,700
Total	52,562,300

The kingdom of France contains 86 towns, which are capitals of departments, and 38,479 communes. The population, in January 1827, amounted to 31, 845,428 inhabitants, of which number two-thirds or thereabouts, were devoted to agriculture, and one third was engaged in trade and manufactures.

Of the cultivated land in Great Britain, it has been estimated that fourteen millions of acres are arable, and twenty millions meadow and pasture.

The United Kingdom contains, according to the returns for Great Britian made in 1821, and the best returns for Ireland, 117 county towns, and 18,885 parishes, and possesses a population of 21,238,580 souls, constituting 4,253,416 families employed as follows:

In Agriculture	1,198,186
Trade, manufactures, &c.	1,677,886
Not comprised in either of the preceding classes	1,377,344
Total	4,253,416

There exist no data of the population of France prior to the year 1780. At that period, according to the calculations of M. Necker, the kingdom contained 24,802,580 inhabitants. In 1821, the population amounted to 30,451,187, which gives an increase of about 23 in every hundred in the space of forty years.

At the same epoch, 1780, the three kingdoms contained a population of 12,400,000 souls, or thereabouts; in 1821 the number of inhabitants had increased to 21,238,580, giving an increase of 61 in the hundred, an augmentation almost treble that which occurred in France.

This difference in the progress of population between France and England is attributed by French writers on the subject, and perhaps justly, to the effects of the war and of the civil dissensions which, in the interval between 1793 and 1815, cut off two millions of Frenchmen,—to the military conscriptions, which, by engrossing the flower of the youth of the country, suspended the natural production of the species,—and to the general relaxation of morals, as evidenced by the number of natural children, who in the year 1824 alone amounted, taking the whole of France, to 71,174 in 984,152 births; and in Paris separately in the year 1826 to 10,502 in 29,970 births.

The increase of population in France, therefore, has only been 6,536 in the million of inhabitants; while the augmentation in England is 16,667 in the million. In Prussia the increase is 27,027 in the million; in the Netherlands 12,372; in the kingdom of the two Sicilies 11,111; in Russia 10,527, and in Austria 10,114. Supposing the annual increase of population to continue in the same proportion in the respective countries just named, the estimate would stand thus:—The population of Prussia would be doubled in 26 years. Great Britain in 42, the Netherlands 56, the two Sicilies 63, Russia 66, Austria 69, France, 105. And thus France, says M. Dupin, would descend by degrees in the scale of nations below all the other countries, and would continue to nourish only 5,688 inhabitants in every square myriametre or 38½ miles English, while in the same space, Great Britain, with a climate less genial, and a soil less fertile, would nourish 8,107. But this result is inconsistent with the progress which manufactures, commerce, arts and sciences have made in France since the overthrow of the empire.

Without attempting to investigate causes which may be real or imaginary, we proceed to apply the preceding and similar data, in determining the very important problem, what will be the state of Europe and of the United States in regard to relative population, in the third generation or about seventy years from this time?

This many, I may say too many, will regard as a merely speculative question; but if we admit the correctness of the data, the elements must give results approaching mathematical deduction. In the subjoined table, I have given to those nations, there mentioned, the ratio of increase contained in the previous extracts; to others I have assigned ratios in accordance with their position and general scale of improvement.

Table of the Existing Population, Extent in Square Miles and Ratio of Iacrease of Population, of the various Nations of Europe.

Nation.	Extent in English sq. miles.	Existing Population.	Ratio of increase.
Great Britain, . . .	125,240	21,238,580	61 in forty years, . .
France, ...	177,000	32,000,000	23 in forty years, . .
Kingdom of the Netherlands,	24,400	5,500,000	100 in fifty-six years, .
German States, ...	70,000	8,000,000	It is probable these states are advancing at a ratio of about 100 in fifty years.
Saxony, ...	7,000	1,200,000	
Wurtemburg, ...	8,600	1,400,000	
Bavaria, ...	32,000	3,560,000	
Austria, ...	268,000	28,500,000	100 in sixty-nine years.
Prussia, ...	105,000	10,500,000	100 in twenty-six years.
Denmark, ...	21,600	1,800,000	Uncertain.
Sweden, ...	188,000	2,500,000	Uncertain.
Russia, including Poland,	1,400,000	50,000,000	100 in sixty-six years.
Italy, except the part included in the Empire of Austria,	117,400	19,168,000	Will double, it is probable, in less than a century.
Switzerland, ...	19,000	1,750,000	Uncertain.
Spain, ...	176,000	11,000,000	Probably stationary, if not retrograde.
Portugal, ...	40,000	8,700,000	
Turkey, ...	270,000	10,000,000	
Amount, . . .	3,049,240	211,816,580	

In this table, though the aggregate exceeds the estimate of Malte Brun, it is most likely under-rated, but if we assume three millions of square miles, and two hundred and ten millions of inhabitants, in round numbers as the extent and population of Europe, we have a distributive population of only 70 to the square mile; whilst several of the parts prove a general capability of at least three hundred on an equal surface.

Some of the first settled, and by no means most fertile sections of the United States, have already reached a density of population, equal to the aggregate of Europe, and both regions are multiplying the elements to demonstrate the salutary truth, that the accumulation of the human species depends much more upon moral than on physical laws, and that, with few exceptions, men are most numerous where their persons and property are best protected.

But independent of local influences of any kind, the Caucasian or European family of mankind, is increasing on the earth with a rapidity which must produce a total change, and an inversible change on the planet. If the data from which the enclosed table was constructed, are even tolerably correct, and if the people of the United States, augment for the ensuing, as they have done for the past 50 years, what will be the aspect of the world about 1880?

With the fulfilment of the preceding conditions, in 1880, the United States will contain upwards of 60 million; Russia, nearly 100 million; Great Britain in Europe, upwards of 40 million; Austria, about 50 million; and France, at least 50 million. These five states will then sustain above three hundred million of inhabitants. Including the other great colonies of Europeans, in America, Asia, Austral Asia, and Africa, the Caucasians, will then exceed in efficiency the whole existing human species.

With these elements before us, the conclusion is at once rational and irresistible, that an entirely new order of political power is in preparation. This terrible revolution is in daily progress, and the stream of migration into central North America, the wide spread European colonies, and the steady advance southward of the Sclavon-Russians, are but the most prominent of its effects.

If we turn our mental eye backwards only two centuries, we behold on the coast of North America, two most feeble English colonies, trembling amid savages. In 1613, Russia, barbarous and unconnected with civilized Europe, had just placed the Romanzof family on the throne, but had not a single sea-port but Archangel on the border of the northern polar circle. At the same period the power of the British nations was rent by division, and rendered inert by the impolitic family of Stewart. France was also paralysed by political and religious contention; Germany in a similar state; Turkey was beyond all comparison the most powerful sovereignty in Europe.

Spain and Portugal had then extended their colonies, the germ of existing nations, but had given few indications of the result. Even now the consequences begin only to appear, of the discovery of the art of printing; the discovery of America, and of immense regions beside; the use of the magnetic needle, improvement of navigation; the prostration of mere brutal force by the introduction of gunpowder into use; and most of all, of the incalculable improvement made on the features of civil government.

It is truly consoling to see in the United States, the advance of the arts of social life, even exceeding in rapidity the augmentation of the people, but in this march of melioration on both sides of the Atlantic, it is singular that one of the most obvious and necessary of all arts, remain every where in a barbarous state, and over considerable sections of the earth utterly neglected. *This art is that of making roads.*

How few on a first inquiry would credit the fact that the art of road architecture has not made a sensible advance in the last two thousand years. Mr. Tredgold, in his treatise on Rail-roads, gives the preference to the Roman over any modern roads, except some very confined Rail-ways. There is not at this moment, (March 5th, 1829,) a single really good road of three hundred miles in existence, on one continuous line in either Europe or America; and might it not be laid down as a postulate, hat of all the links that can be forged to unite distant bodies of men together, a good road is the nost effectual.

The Roman roads were constructed to facilitate their conquests, and perhaps no system of policy ever more completely fulfilled its purpose. Roads n the United States fulfil the still more beneficent purpose of superseding all rivalry, and of securing nion without conquest.

Of all modern generals Peter I. of Russia, and Napoleon, were the only two who appreciated the ilitary value of roads, and had Nicholas employed 0,000 men during 1828, to construct a road from Kiow to the Danube, opposite Silistria, he would be ow nearer Constantinople than he is in fact; and some of our own politicians could be made to estimate the advantages of roads, they would scarcely aste that money in debate which would be adeuate to effect the improvement. Yet, it is more han probable that, similar to interior water intercommunication by steam, that the utmost perfection of roads on an extended scale will be first effected in the United States. WILLIAM DARBY.

RECIPES.

To Make Glass-Paper.

Take any quantity of broken window-glass, that which has rather a green appearance on the edge is best, pound it in an iron mortar, then have two or three sieves of different degrees of fineness, ready for use when wanted; take any good tough paper, fine cartridge is best, and having levelled the nobs and bumps from both sides with pumice-stone, tack it at each corner on a board, and with good clear glue, diluted with about one-third more water than is used generally for wood work, go quickly over the paper, taking care to spread it even with your brush; then, having your sieve ready; sift the pounded glass over it lightly, but to cover it in every part; let it remain till the glue is set, take it from the board and shake off the superfluous glass again into the sieve, and hang it in the shade to dry: in two or three days it will be fit for use.

[*Cabinet-Maker's Guide.*

To make Cement for Broken Glass.

Take one ounce of isinglass, steep it in half a pint of spirits of wine, for twenty-four hours, then let it dissolve over a slow fire, always keeping it covered, or the spirit will evaporate; then take six cloves of garlic, bruise them well in a mortar, put them in a linen cloth, and squeeze the juice into the isinglass, mix all well together, and keep it for use, it being excellent to join glass ornaments, &c. &c. [*Ib.*

Loss of Meat in Cooking.

Four pounds of beef lost by boiling, 1 lb; by roasting, 1 lb. 5 oz.; by baking, 1 lb. 3 oz. The same weight of mutton lost by boiling, 14 oz.; by roasting, 1 lb. 6 oz.; by baking, 1 lb. 4 oz.

[*Journal des Connoissances Usuelles.*

THE FARMER.

BALTIMORE, FRIDAY, APRIL 3, 1829.

☞ General Lafayette.—However great the distance that separates him from us, this patriotic veteran appears to take unfailing interest in all that concerns the welfare of the United States.

It will be seen, that as late as the 26th of January, he was in good health, and well aware of the inquiries and experiments which are going on as to the capacity of our country, and the fitness of its circumstances for producing *silk.* The letter is to Mr. Skinner, of Baltimore, Editor of the American Farmer, with whom the General maintains a regular correspondence on agricultural topicks.

My Dear Sir: *Paris, Jan.* 25, 1829.

I have had this morning the pleasure to see our excellent Frederick in good health. What respects the new arrangements concerning him will be reported by himself and by my son. The wormseed and silk making book will, I hope, have arrived safe by Captain Macy. Here is the last and much valued publication on the subject. I send two copies, as I had sent two lots of seed, one for you, the other for my agricultural correspondent. The letter to M. Girod de Lāin has been delivered, and most gratefully received. He has requested me to forward his answer. But I must first send the books by the stage. My best respects to Mrs. Skinner; remember me to our friends at Baltimore and Washington.

Most truly and affectionately,
Your friend, LAFAYETTE.

Here is a letter from Frederick.
Mr. Skinner.

The book spoken of by the General as "the last and much valued publication on the subject," is entitled, De l'education des vers a soie-d'apres la Methode du Comte Dandolo; On the rearing of Silk Worms after the Method of Count Dandolo, by Matthieu Bonafous.

It is to be feared that the worms' eggs will have hatched, not so much from any actual scarcity, as for the reason that they might have afforded a variety of worms. Since we are on the subject, it will be well to mention, that we believe the Society established in Philadelphia for promoting the culture of silk, have advertised that they will be prepared to offer a fair and certain market price for *cocoons.*

☞ Spring Wheat.—As it has been with great difficulty that good spring wheat could heretofore be obtained, and as a very general desire prevails to give it a trial, our agricultural friends will be glad to learn, as they will from an advertisement in this number of the Farmer, that a few bushels, of a very superior quality, is for sale at the store of Dinsmore, Kyle & Co. It is the product of a few grains sent some years ago by the Editor to a gentleman on the Eastern Shore of Maryland.

☞ Champagne from Currants.—A correspondent in Ohio requests information as to "the process of making Champagne from white currants, and what gives it the sparkling quality?" We shall be obliged to any person who will give us the information called for.

☞ Farmers' Accounts.—We have received a copy of an excellent little work, entitled, "The Farmer's Accountant," by Pleasant Suit, of Petersburgh, Virginia. It appears to us to be a good system for keeping Farmers' accounts, and we recommend it to the attention of those who have heretofore neglected this very necessary and useful part of their farming business. We expect a few copies of the Accountant for sale at the Farmer office in a few days.

☞ The Baltimore Market.—The late news has had little effect upon the flour market, prices remain about the same as those of last week, viz: $7 a $7.25 from stores.

Latest Foreign News.

By the ship Herald at this port, intelligence from England is received to the 8th February. There is no news of immediate interest to our agricultural friends. Parliament opened its session on the 5th February, and the King in his Speech called the attention of the legislature to the Catholic question most earnestly.

London Corn Exchange—Feb. 4—2 P. M.

The supply of free Corn this week is extremely small, and only moderate of foreign; but there were nearly 21,000 quarters of Irish Oats reported for this morning's market. The Wheat trade was very heavy, and none but picked samples met buyers—the low price of Barley has induced our distillers to buy freely, and the market is nearly cleared of English, but there still remains a large quantity of foreign offering for sale. Beans and Peas are without alteration in value. For heavy old Oats and new Scotch, there continues to be some inquiry, but the inferior Irish, of which the arrivals mostly consist, are nearly unsaleable. A parcel of New York superfine Flour, consisting of about 1,000 barrels partially damaged, were on Monday put up for sale by auction, and went off freely at 41s to 42s for the damaged, and for that in good order as high as 45s were obtained.

Arrivals since Monday—English Wheat, 600 qrs. Barley, 3,600 qrs; Oats, 6,600 qrs. Irish Wheat, 100 qrs; Oats, 20,600 qrs. Foreign Wheat, 6,600 qrs; Barley, 150 qrs; Oats, 2,200 qrs; Flour, 3,250 sacks.

Liverpool, Feb. 7.—Notwithstanding the heavy arrivals, our cotton market has been firm; and the sales of the week (including 300 Sea Island by auction yesterday) have been about 14,300 bags, at fully last week's prices. Bowed, Alabama, &c. 6½ a 6 5-8d per lb.

The following is the quantity of cotton imported since our last:—

Carthagena, 286 bales; Charleston, 9291 do; Demerara, 115 do; Halifax 6 do; Barbadoes, 175 do; Nassau, 5 do; Maranham, 4189 do; New Orleans, 7924 do; New York, 2013 do; Pernambucco, 3653 bags; Rio Janeiro, 37 bales; Savannah, 9335 do; Virginia, 964 bales.—Total, 37,992 bales and bags.

The Grain market since Tuesday, has continued flat.

The following is the weekly average price of Grain for the last six weeks, under 9th Geo. IV. cap. 60, just received.

Wheat 75s 3d. duty 1s; Barley 46s 5d. duty 7s 10d.; Rye 41s. duty 3s 6d per quarter.

Liverpool Corn Exchange, Feb. 4.

We have had a very large supply of Grain this week, principally from Ireland, which has been kept back some time by adverse weather, and about 16,500 bbls. of flour, and 2,500 qrs. of Indian Corn, from the United States. The partial thaw which took place in the early part of the week, was succeeded by a severe frost, so that the inland navigation, except the Old River up to Manchester, continues closed, and our increased supplies have not been met by any increased demand. The holders generally, however, have not shown any great anxiety to press sales, or to submit to any material reduction in price, but one or two of the importers of foreign Wheat have pressed it upon the market and made considerable sales, both here and in Manchester, on Saturday, of good Wheat at 10s 3d per bushel. The duty on Beans is increased 1s 6d per qr. On all other articles it remains the same as the week preceding.

There were very few country millers to this day's market, but a fair attendance of our own dealers, who appeared to be in want of Wheat, and they purchased to a fair extent of the finer qualities, at a decline of 3d to 4d per bushel from the prices of this day week. Inferior sorts were quite neglected—Oats were but little enquired after, and 1d per bushel lower. Malt, Barley, Beans and Peas were nominally the same as last week. Indian Corn was offering 1s per qr. lower. In Flour and Oatmeal there was very little doing, and our former quotations hardly maintained.

Prices Current in Boston, March 27.

Apples, best, bbl. $.3.00 a 3.75. *Beans*, white, bushel 1.00 a 1.37. *Beef*, mess, bbl. 10.00 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 8.75 a 9.00; Genesee, 6.75 a 9.00; Rye, best, —. *Grain*, Corn, bush. .63 a 65; Rye, .60 a .66; Barley .67; Oats .35 a .38. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 16.00 a 16.50; Navy, mess, 13.00 a 13.50; Cargo, No. 1, 13.00 a 13.25. *Seeds*, Herd's Grass, per bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3 00; Rye Grass 4.00; Tall Meadow Oats Grass 4.00; Red Top 1.00; Lucerne, lb. .50; White Honeysuckle Clover, .50; Red do. Northern, .8 a .9; French Sugar Beet 1.50; Mangel Wurzel 1.60. *Wool*, Merino, full blood, washed, .35 a .44; do. do. unwashed, .22 a .26; do. three-fourths washed, .30 a .35, do. half and quarter washed, .28 a .33; Native, washed .25 a .28; Pulled, Lambs', 1st sort, .37 a .41; do. do. 2d sort, .25 a .30; do. do. spinning, 1st sort. .30 a .35.

Prices Current in New York, March 28.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .10 a .12; Upland, .8½ a .10; Alabama, .9 a 10½. *Cotton Bagging*, Hemp .19 a .21; Flax .15 a .18. *Flax*, American .8 a .9¾. *Flaxseed*, rough, tierce ——; clean ——. *Flour*, New York, per bbl. 7.37½; Canal 7.75 a 8.25; Baltimore Howard street, 7.75; Richmond city mills, 7.37½ country 7.25; Alexandria 7.37½; Fredericksburg 7.37½ a 7.50; Petersburg 7.25 Rye Flour, per barrel 3.75; Indian Meal, barrel 2.87½; hhd. 14.50 a 15.00. *Grain*, Wheat, North River —; Virginia 1.50 a 1.55; N. Carolina 1.50 a 1.53; Rye, Northern .70; Corn, Northern .53 a .55; Southern .42 a 47; Barley 55; Oats .31 a .37; Peas, white dry 7 bush. 4.00; Beans, 7 bush. 8.00 a 9.00. *Provisions*, Beef, mess 9.00 a 9.50; prime 7.00 a 7.50; cargo 5.50; Butter, N. York, 12½ a 16; shipping, .6 a .11; Lard, .6 a .6½; Pork, mess 12 a 12.75; prime 9.62½ a 10.00; cargo 8.50 a 8.75; Hams, Virginia .9 a .10; Northern .9 a .10. *Rice* .3 a .3½; Whiskey, rye, per gall. .24; Cider Brandy .30 a .33. *Tobacco*, Virginia .3½ a .6½; Kentucky, .3½ a .6½. *Wool*, Merino, American fleece, .32 a .38; Pulled, .32 a .35; common, .18 a .25.

Prices Current in Philadelphia, March 31.

Bees-wax, yellow .23 a .24; *Beans*, bushel $1.25 a 1.50; *Beef*, mess 10 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .9 a .9½, No. 2, .5 a .6; *Cotton*, New Orleans .11 a .13, Upland .9 a .10½, Tennessee .9 a .10½, Alabama .9 a 10½; *Feathers*, Southern .33 a .34, Western .31 a .32; *Flax* .8 a .8½. *Flour*, superfine 7 50; fine 7.00 Rye 3.25; Cornmeal, hds. 12.00, bls. 2.50; *Flaxseed*, cask 10.00, bu. 1.35; *Grain*, Wheat 1.50; Rye .55 a .60, Corn l. c. white .41 a .43, l. c. yellow .42 a .44, u. c. round .50 .52, Oats .25 a .33, Barley, Pa. .45 a .50; do. Eastern, .55; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western —; *Hemp*, 235 a 240; *Lard*, .6 a .8½; *Oil*, linseed .79 a .60; *Pork*, mess 13.00 a 13.50, prime 12, cargo 10.25 a 10.50; *Rice*, 3.00 a 3.75; *Tobacco*, Kentucky .4 a .7, Virginia .4½ a .7; *Wool*, common washed lb. .28 a .30, half blood .30 a .32, three quarters blood .33 a .35, full blond .36 a .40, unwashed, generally 10 cents less, according to quality.

MARYLAND ECLIPSE.

The thorough bred horse Maryland Eclipse, will be let to mares this spring, at Mr. Potter's, Canton, near the City of Baltimore, at the sum of $20 the season, $30 to insure with foal, and $15 the single leap—the season to be paid for before the mare is done with the horse—the insurance, when ascertained to be in foal, and the leap, before the mare goes to the horse. The person putting a mare to this horse, will be held liable for the season, and insurance in case the mare be disposed of. Good pasturage will be provided for mares coming from a distance, but not answerable for accidents or escapes.

Eclipse will be five years old next June, is near sixteen hands high, dark chesnut sorrel, great bone, and muscular power, fine action, and in figure, is said by competent judges, to be equal to any colt in the United States. Season to commence the first day of April and end on the first day of July next.

Pedigree.—Maryland Eclipse was gotten by the justly celebrated race-horse, American Eclipse, formerly the property of Mr. Vanraatz, of New York. American Eclipse was sired by Duroc, Duroc by Diomed, &c. Dam of American Eclipse was the Miller's Damsel; she by Messenger, &c. The dam of Maryland Eclipse, the Lady of the Lake; grandam, Maid of the Oaks, sired by Spread Eagle, &c. Sire of Lady of the Lake, Mr. Badger's Hickory; Hickory, by the imported horse Whip. Hickory's dam Dido, by the imported horse Dare Devil.

SAMUEL BRISCOE, *Agent.*

April 3, 1829.

SPRING WHEAT.

A few bushels of this valuable grain, is now in the store of Dinsmore, Kyle, & Co. for sale.

This wheat is produced from a few grains sent by the editor of the American Farmer, to a gentleman residing on the Eastern Shore of Maryland, many years past, and it is now, for the first time, that the grower is enabled to sell. This wheat is not a bright grain, but is in every other respect of better quality than any of the various kinds of winter wheat, grown upon the same farm, the last disastrous year.

It requires early sowing, and is best calculated for highly improved land, and requires two bushels to the acre. The produce is decidedly more valuable than oats, and not so exhausting.

ALMANAC.

1829. April.		Sun. Rises.	Sun. Sets.	Length of days.	Moon Sets.
		H. M.	H. M.	H. M.	H. M.
Saturday,......	4	5 41	6 19	12 38	7 32
Sunday,........	5	5 40	6 20	12 40	8 41
Monday,........	6	5 38	6 22	12 44	9 47
Tuesday,......	7	5 37	6 23	12 46	10 47
Wednesday,..	8	5 36	6 24	12 48	11 41
Thursday,.....	9	5 35	6 25	12 50	morn.
Friday,.........	10	5 33	6 27	12 54	0 31

Moon, First Quarter, 10th, 9 h. 0 m. Ev.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

Tobacco.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 3.50 *a* 4.50—red, 4.50 *a* 6.50—fine red, 6.00 *a* 8.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red, 6.00 *a* 8.00—fine yellow, 10.00 *a* 20.00—Rappahannock, 2.50 *a* 3.50—Kentucky, common 3.50 *a* 5.00—wrapping, 4.00 *a* 6.00.

Flour—best white wheat family, bbl. $9.00—superfine Howard-st. (sales) 7 *a* 7.25; city mills, 6 75 *a* 7.00; Susqu. 6.75 *a* 7.00—Corn Meal, bbl. 2.50—Grain, best red wheat, 1.40 *a* 1.50—best white do. 1.60 *a* 1.70—ord. to good, 1.30 *a* 1.40--Corn, .40 *a* .42—Rye, .45 *a* .50—Oats, .26 *a* .28—Beans, 1.00 *a* 1.25—Peas, .65 *a* .60—Clover seed, 4.00 *a* 4.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—Barley, .45 *a* .50—Flaxseed, 1.00—Cotton, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alabama, .10 *a* .11 Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .12—Whiskey, hhds. 1st pf. .24—in bbls. .25 *a* 25½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .60, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehannah, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 3.25; No. 2, 2.87½ *a* 3—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Baltimore cured, new, .9½ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .29—Plaster Paris, cargo price per ton, $5, ground, 1.25 bbl.; grass fed prime Beef, 3.50 *a* 5.00.

Marketing.—Apples, bush. 2.50 *a* 3.00; Pheasants, pair, .75; Squabs, 18¾; Rabbits, .12½; Turkies, each, 1.12½ *a* 1.25; Butter, lb. .25 *a* 37½; Eggs, .11 *a* .12½; Potatoes, Irish, bushel .50; Fowls, per dozen 3 *a* 3.75; Ducks, doz. 3.00 *a* 3.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7· Pork, .6; young Pigs, dressed, .75 *a* .87½; Sausages, lb. .8; Onions, bush. .50; Beets, bush. 1.00; Turnips, bush. .25; Partridges, .6¼ each; Canvass-back Ducks, pair, .75, Terrapins, 4.00 *a* 4.60 per doz; Pork, 5.50 *a* 6.00 cwt.; prime Beef, on hoof, 5.50 *a* 6.00.

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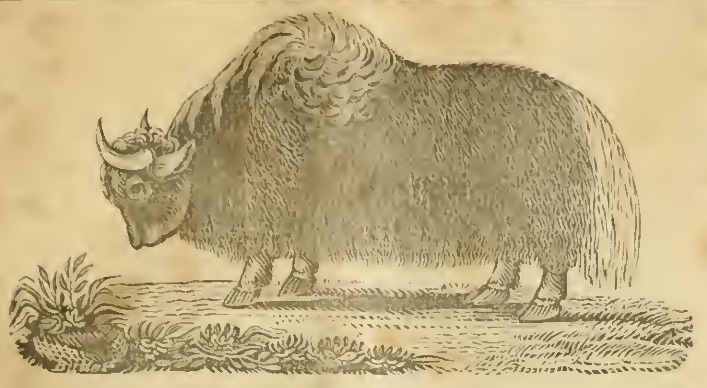
AGRICULTURE.



CHOWRY-TAILED CATTLE OF TIBET.

(Communicated for the American Farmer.)

(*From an Account of an Embassy to the Court of Teshoo Lama, in Tibet; containing a Narrative of a Journey through Bootan and part of Tibet—by Captain* Samuel Turner—*2d edit. 4to., published in London* 1806.)

This very singular and curious animal deserves a particular description.

The bull is denominated yak, the cow, dhé. The yak of Tartary, called soora goy, in Hindostan, and which I term the bushy-tailed bull of Tibet, is about the height of an English bull, which he resembles in the general figure of the body, head and legs. I could discover no essential difference, except that the yak is covered all over with a thick coat of long hair. The head is rather short, crowned with two smooth round horns, which, tapering from the root upwards, terminate in sharp points; they are arched inwards, bending towards each other, but near the extremities are a little turned back. The ears are small; the forehead appears prominent, being adorned with much curling hair; the eyes are full and large; the nose small and convex; the nostrils small; the neck short, describing a curvature both above and below; the withers are high and arched. The rump is low; over the shoulders rises a thick muscle, which seems to be the same kind of protuberance peculiar to the cattle of Hindostan, covered with a profusion of soft hair, which in general is longer and more copious than that along the ridge of the back to the setting on of the tail. The tail is composed of a prodigious quantity of long, flowing and glossy hair, and is so abundantly well furnished, that not a joint is perceptible; but it has much the appearance of a large cluster of hair artificially set on. The shoulders, rump, and upper part of the body, are clothed with a sort of thick soft wool; but the inferior parts with straight pendant hair that descends below the knee; and I have seen it so long in some cattle, which were in high health and condition, as to trail upon the ground. From the chest between the legs, issues a large pointed tuft of straight hair, growing somewhat longer than the rest; the legs are very short. In every other respect he resembles the ordinary bull. There is a great variety of colours amongst them, but black or white are the most prevalent. It is not uncommon to see the long hair upon the muscle above the shoulders, upon the ridge of the back, the tail, and tuft upon the chest, and also the legs below the knee, white, when all the rest of the animal is jet black.

These cattle are pastured in the coldest parts of Tibet, upon the short herbage peculiar to the tops of mountains and bleak plains. The chain of mountains, situated between the latitudes 27° and 28°, which divides Tibet from Bootan, and whose summits are most commonly clothed with snow, is their favourite haunt. In this vicinity, the southern glens afford them food and shelter during the severity of winter. In milder seasons the northern aspect is more congenial to their nature, and admits a wider range. They are a very valuable property to the tribes of itinerant Tartars, called *Dukba*, who live in tents, and tend them from place to place; they at the same time afford their herdsmen an easy mode of conveyance, a good covering, and wholesome subsistence. They are never employed in agriculture, but are extremely useful as beasts of burden; for they are strong, sure footed, and carry a great weight. Tents and ropes are manufactured of their hair, and amongst the humbler ranks of herdsmen I have seen caps and jackets made of their skins. Their tails are esteemed throughout the East, as far as luxury or parade have any influence on the manners of the people; and on the continent of India they are found, under the denomination of *chowries*, in the hands of the meanest grooms, as well as occasionally in those of the first ministers of state. They are in universal use in driving away winged insects, flies and mosquitoes, and are employed as ornamental furniture upon horses and elephants; yet the best requital with which the care of their keepers is at length rewarded for selecting them good pastures, is the abundant quantity of rich milk which they give, and the butter produced from it, which is most excellent. This is preserved in skins or bladders, and being excluded from air, keeps in this cold climate the year round; so that after some time tending these herds, when a sufficient store is accumulated, it remains only to load their cattle, and drive them to a proper market with their own produce, which constitutes, to the utmost verge of Tartary, a most material article of merchandize.

I had the satisfaction to send two of this species to Mr. Hastings, after he left India, and to hear that one reached England alive, which was a bull; remained for some time after he landed in a torpid, languid state, till his constitution had in some degree assimilated with the climate, when he recovered at once both his health and vigor.

[An engraving of this bull, from a picture in possession of Mr. Hastings, painted from the life by Stubbs, is annexed.]

MANUFACTURE OF SUGAR

From a book, under the title of "Letters from Cuba," recently published in Boston, we are indebted to the Commercial Gazette for the following interesting extract. The author of the letters, we are informed, was the late Rev. Abiel Abbott, of Beverly, who visited Cuba about a twelve month since for the benefit of his health. Mr. Abbott is represented as a gentleman, who to extensive acquirements, added a fine genius and a benevolent heart. The minute account which is given us of the mode of manufacturing sugar, will no doubt be read with avidity by such of our Southern planters, (and these are numerous,) who have embarked in the manufacture of that valuable article. And it will be more acceptable to them from the circumstance, that in consequence of the recent introduction of the manufacture in the south, to any extent, the knowledge of many of them, in relation to the varied process, must necessarily be imperfect.

[*Savannah Mercur.*

After a superb breakfast, highly enjoyed, with an appetite eager from a ride of ten or eleven miles, we sallied out to survey an extensive *sugar plantation.* Two volantes accommodated the ladies; the gentlemen first repaired to the mill to witness a busy scene. A huge boiler, filled with grits, was preparing dinner for the labourers on the spot. A negro, close by, with a mill turned by a crank, was providing the raw materials. Two mills, with ten or twelve oxen harnessed in each, with a driver to each pair on the outside, and a general whipper on the inside, and a yell from the whole, which defies description, were keeping the mill in quick motion. When the cane had passed through the first pair of nuts, it was turned back again through the second pair (the middle nuts being one of each pair,) by six wooden rollers, called dumb turners, revolving parallel with the nuts. The juice fell copiously into an inclined trough, and passed off rapidly in an under-ground conductor, to join the confluent stream of the other mill. Together, in a rapid and respectable tide, it disgorges itself into a reservoir, in the boiling section of this vast building, one story lower than the level of the mills. The mills in this manner deliver 500 gallons in 25 minutes.

From the reservoir, the juice is next passed by a duct, to a large copper kettle containing 500 gallons, under which is kept a hot fire of wood; into this mass three tumblers of lime are thrown as a refining process. Here it boils with violence, and rises crowned with froth and bubbles, and as it is prone to overleap the limits of the kettle, there is a second rim rising higher, which controls the stray fluid and leads it into a reservoir close by, which may be called the save-all, for safe keepings.

The next step is to transfer the refined juice into a duct, which conveys it into a tank, where the impurities sink to the bottom. Thence it passes, by an easy conveyance, to take its course through a row of three kettles, over a fire, a gentle fire of dried ground cane. From the first kettle it is dipped out into the second by a negro, with a copper bucket attached to a long pole, which operation he performs by means of a moving skid, with dexterity and tolerable ease. From the third kettle it is transferred to a tank, or large trough, against the wall, with a guard of boards on each side, that nothing may be lost. It is here brought to a state of granulation by two negroes, one at each end of the trough, dashing with the bucket on the pole back and forth, and up and down, till it is felt or seen to be graining. It is at this trough that strangers and negroes have free access to cake off the sugar for their entertainment; and invalids find it salutary to inhale the fumes of the neighbouring kettles.

In this state of granulated liquid, the precious mass is taken in an iron bucket to the pans, arranged in rows over an inclined plane. The pans are first wetted, that the sugar may not stick to them, and are in the form of an inverted cone, with a hole at the bottom, which is stopped by a plug and husks, but not so tight as to prevent the molasses from oozing out, and falling on an inclined plane, placed like a roof beneath, and running into casks below. Negroes returning from the field are required to call as they pass, and take each a pan of sugar to the purging house, so called, till they are all removed. Here we will leave the pans for the present, to complete our view of the mill and boiling house. Passing to the end of the building, we look into the furnaces under the respective kettles, and find all are fed with dry cane, which has been through the mill, except the central fire under the clarifying kettle, which is heated hotter than the rest with wood. Great quantities of cane fuel are housed at hand, lest rain should unfit it for use. I may just remark that the negroes wear sandals in this business, and that the pots, about to receive the granulated juice, are wet to prevent its sticking; and that from the central clarifying boiler, the same process goes on to the granulating tank, both on the right and left.

In passing to the *purging house*, we discovered a negro goading a pair of superannuated oxen, who were incapable of harder labour, round a post in the centre of a little pit, six or eight feet in diameter, for the purpose of treading liquid clay. Every thing, of course, looked filthy enough. In this dirty hole is produced the mighty agent, through whose pollution purity is produced, and snowy whiteness is imparted to the dark muscovado.

In the neighbouring building, we saw it standing in rows, with the lower part of the cone in a hole, to drop the molasses again upon an inclined plane, which conveys it to a vat, holding 30,000 gallons. We saw 700 pans, each holding from 35 to 50 lbs. of sugar. On the top of the sugar in the pan, a portion of the clay from the pit is placed, and by its magical power it drives the molasses downward, till the greater part of the cone becomes white, and the bottom tinged with a slight molasses colour—The clay comes off from the top entirely in a cake, perhaps an inch thick. The pots are once more removed to a drying house; the white sugar is then severed from the darker, and cut and broken into small pieces, and exposed to the sun in driers on truckles, that in a moment they may be run under a roof, in case of rain, The same is done by the darker sugar; and both are next moved to the store and boxed for the market, and sent eighteen miles, by land, on mules or in carts, to the Embarcadera, and thence by the Canimar to Matanzas, twelve miles. Five hundred gallons of juice yield about three hundred pounds of clayed sugar; and as that quantity of the liquid flows from the nuts in twenty-five minutes, and the operations of the mills and furnaces being simultaneous, and so managed that one part shall not wait day or night for the other, this mill and furnace establishment must send to the purging house, the driers, and the boxes, more than seven hundred pounds of clayed sugar in an hour: 16,800 lbs. must be boxed each day, and something like 1,000,000 lbs., to speak loosely, in a season.

The molasses of this establishment is a heavy article, and would be an important item in the profits of the plantation, if the carriage did not nearly consume its price. The planter designs to set up a distillery on the premises, to raise the price and diminish the carrying of this branch of the economy of the plantation.

ON RED CLOVER.

Mr. Skinner: *Virginia, March* 30, 1829.

Sir,—If we were to judge merely from the advertisements of our seedsmen and writers of agricultural essays, we should be naturally led to the conclusion that there was but one species of this valuable grass; it being usual with them to mention it simply under the common name of "red clover." Indeed, it would seem that the opinion very extensively prevails, that there is but one kind. But this is an error, and ought to be corrected. We have at least two varieties in cultivation amongst us—the small, early kind; and the large, late red clover.

Both species are noticed by most European writers, though sometimes differently designated by them. Mills speaks of the large kind under the name of "*Trifolium purpureum majus, pratensi simile*"—the larger trefoil with purple blooms, like the meadow trefoil.

Miller mentions both sorts, and says, "the stalks of the meadow trefoil" (little, early red clover,) "are weak and hairy, the stipulæ which embrace the foot stalks of the leaves are narrow, and very hairy; the heads of the flowers are rounder than, and not so hairy as those of the clover," (the *trifolium purpureum majus*, or large, late red clover,) "whose stalks are strong, almost smooth, furrowed, and rise twice the height of the other. The heads of the flowers of the clover are larger; more oval and more hairy than those of the red meadow trefoil; their petals open much wider, and their tubes are shorter."

Mr. George Sinclair also mentions two kinds—the *trifolium pratense*, and the *trifolium macrorhizum*, which I take to be the *trifolium purpureum majus* of Mills and Miller, and which is the only kind they seem to think properly entitled to the name of red clover, they invariably calling the other the red meadow trefoil.

As far as I can learn, I am inclined to believe that the *trifolium pratense*, or little red clover, is the sort most generally cultivated in this country, as I find but few who appear to know any thing of the large kind, and most of those object to it because they say it makes but indifferent hay, and yields but one crop in a season. But from all the experience I have of it, (and I have been generally a cultivator of it for thirty years,) I am inclined to believe that this is the fault, not of the grass, but of the cultivator. The small kind is cut for hay when the heads turn brown; makes good hay, and being a sort of rare-ripe grass, if I may be allowed the expression, it quickly revives and yields a crop of seed in the fall: while the large clover, treated in this way, makes very indifferent hay and affords no seed crop. But different sorts of grass, like different kinds of grain, require different modes of management, adapted to their several varieties; and I think I shall be safe in maintaining, that if the large red clover is cut as soon as it begins to flower (the time when Mills says it ought to be cut) it will be found to make as good hay as the other, and will yield near double the quantity to the acre; and will then, moreover, produce a crop of seed in autumn. It becomes a matter of importance then, at least to more southern farmers, that a distinction should be made; and, it is to be hoped, that hereafter, when our seedsmen advertise red clover seed for sale, they will make the proper discrimination, and let us know which kind it is they offer us.

A Subscriber.

PROSPECT OF CROPS.

Mr. Skinner: *Cambridge, Md., March* 30, 1829.

Sir,—I lament to have occasion to rehearse the trite and odious theme of agricultural misfortunes. It seems that the elements or the markets must forever defeat our hopes. The past excessive winter has destroyed our prospects of wheat. I had, a few weeks ago, a field of 75 bushels of seed wheat, as fine as I ever saw grow. I yesterday rode through it, and to my mortification and astonishment, discovered that, within the last three weeks, though in land that never did before *heave*, and in the most beautiful tilth, the wheat hand-raked and the water drains perfect, yet from about one half the field the wheat was *absolutely* and *literally* exterminated; and I have understood since, that this disastrous loss is general throughout the county.

To be candid with you, I have never before felt my *agricultural energies* so much *impaired* as in the present instance, though I have often been disappointed in my expectations. I am this moment going to visit my Transquaher farms, where I have no doubt of witnessing the same woful fact.

Yours, truly, JOS. E. MUSE.

HORTICULTURE.

THE VINE-DRESSER'S MANUAL.

[We have received from the publisher, Mr. P. Canfield, of New York, a copy of "The Vine Dresser's Theoretical and Practical Manual, or the art of cultivating the vine, and making Wine, Brandy, and Vinegar, by Thiebaut De Berneaud." The following extracts will give our readers a better idea of the work than any thing we could say. The work professes to describe in plain practical terms, the species and varieties of the vine; the climates, soils, and sites in which each can be successfully cultivated, with their times of blossoming and bearing; the diseases of the vine and means of prevention; with instructions for the preservation of Wines, Brandies, Vinegars, Confections, &c. of the grape; for the care of the Wine cellar; the economy of the Vineyard; and a brief sketch of the diseases incidental to the Vine-Dresser.

We shall confine our extracts to that part of the work which treats of making wine, a subject to which we have not heretofore paid much attention:]

ON THE VINTAGE.

The art of making wine comprises a long series of operations of different degrees of delicacy, but all of equal importance, in consummating the article to a degree of excellence and durability fit for the purposes of commerce. Two faults in the fixing of the time for the vintage may be noticed; the one when from a fear of the grapes being robbed, they are gathered before they are full ripe; the other when they are left to hang too long, which makes the wine weak, hard to clear, and very apt to be full of phlegm.

The mark of the proper term of ripeness, is when the pellicle is thin, transparent, and does not yield short to the teeth; when the colour is at the deepest; the white becoming grey, the reddish purple deep black; when the stem of the bunch is dry and woody, and the colour brown like the bark; when the cluster depends, hanging downwards visibly, for the maturity increases the weight; when, which is an unfailing sign, the berry comes off with a touch, leaving on the stem a transparent blob of the pulp, of a winy colour.

This term is generally waited for in all the south of France; but in the more northerly parts, where the early frosts of September and October are much to be feared, they gather earlier. Dead ripe black grapes may, in extreme cases, be left to the attacks of slight frosts; but if unripe, a frost does them great injury; there will be a loss of one fifth in the quantity of the wine, and it will be weak, pale, and apt to sour and turn ropy.

The vintage should take place of a fair day, and when the sun has dried the dew. It must be done with the greatest activity and despatch, because dry sunny weather at that period of the year is variable. If rain comes on, the vintage must be put back; the delay of a day or two is better than to manufacture, from wetted grapes, a wine that will not keep. Grapes gathered during a hot and dry time, or at a middling temperature, ferment the quickest and strongest.

To gather the fruit, some use a pruning hook, or knife, others their hands, and the greater number, slender shears. The pruning hook is wholly unfit; the instrument is clumsy, and in cutting the stem of the bunch, the plant necessarily suffers a shock which makes the ripest berries fall; and also dried leaves, which soak up the juice, diminish the quantity of the must and communicate an acrid savour to it. The pruning knife gives the plant a still stronger shake. The abuse is even greater where the vintagers are allowed to use their fingers; the stem rarely breaks at the first pull; and when repeated, the jerk it communicates to the branch, rains down berries and leaves over the whole ground. The only advantageous way is to use a very long, slender, pair of shears, which divide the stem with care and occasion no loss.

The vintager's basket should be small, and he should lay the bunch in it as lightly as possible, for fear of bruising the grapes. In large baskets, the fruit is heaped and crushed, and the richest part of the juice runs to waste. A deep basket, holding two pecks, narrow at bottom, and gradually spreading broader to the brim, is the proper kind. This shape allows the weight of the fruit, instead of resting on the bottom entirely, to fall more on the sides of the basket, which prevents the crushing of the lowermost bunches. The vintager, as he cuts, should pick out and throw away dry, rotten, or green berries. The dried berries soak up the must and give out an acid taste; rotten grapes ruin the wine; the green ones give a harsh rough taste, and make the wine likely to sour. If such grapes are not picked out, there will result, among the other evils they occasion, an unequal fermentation of the saccharine and aqueous matters and a striking deterioration in the quality, which cannot be masked. The fruit is transported to the wine vats in wagons, or on the shoulders of men, or in panniers slung across horses. The gatherings of each vintager are removed into larger willow baskets, or into barrows expressly for this use.

The custom of using willow panniers is none the better for being the most ancient known; owing to their elasticity the slightest movement causes the fruit to sagg and the skins to break, consequently the juice is constantly leaking. The wagon jolts too violently to be a proper means of carriage; wooden barrows transported by men, or by horses or asses, carry the grapes to the vat, without loss, or bruising or overbeating. The grapes *de la Mame* (for Champagne wine) are deposited in broad baskets slung across horses; the baskets are carefully covered with large cloths to keep of the heat of the sun and prevent an untimely effervescence.

A careful vine-dresser therefore will have the vintage only undertaken in fine weather; he will allow no awkward vintager to endamage his crop; he will hire labourers enough to finish the work in one day; he will superintend the work himself, with the assistance of a strict and able overseer; he will have the stems of the bunches cut as close to the cluster as possible; he will require his vintagers to pick out and throw away the rotten berries, and to leave on the plant the unripe bunches; he will supply them with small baskets only; and will see that the clusters are removed into the panniers gently and with due care, and transported to the press by horses or carried by hand.

OF STEMMING THE GRAPES.

Vine-dressers are still divided on the question whether it is better to remove or to leave the stems of the bunch in the press. Rozier recommends stemming; and owing to him it is universally practised in the neighbourhood of Lyons, and particularly in the famous vine-grounds of Ampuis and St. Cyr. Near Bordeaux they carefully stem all the red grapes from which they wish to make a better wine than common; and it is generally done, also, wherever pure, superior wines are wanted.

The authority of the celebrated Rozier, and of the vine-grounds mentioned, seems beyond questioning; and yet the stemming of the grapes has had to be given up in the Orleannois and all those districts which do not raise sweet grapes. Experience goes before science, says Bernard de Palissy; the facts are such, and science has resolved the problem.

We now therefore know that stemming is proper in the South, where the wine is rich and generous; while in the North, where the wine is weak or insipid, in seasons that the grape is very ripe and juicy, it is better not to stem, or if it is done it is better to spare the stems of at least part of the crop.

The stem contains an acerb astringent principle which renders the wine rough during the two first years, but contributes to its preservation. This principle corrects the weakness of the must, and facilitates the fermentation according to the temperature of the year. It then becomes an agreeable quality, and by increasing and heightening the flavour of the wine, adds to its value.

There are several ways of stemming; the readiest and easiest is that practised in the district of Besancon. A large vat is constructed, ten or twelve feet in circumference, or 3½ in diameter by 2½ feet in height. On the inside, about ten inches below the rim of the staves, there are three brackets to support a false bottom; this is made of three or four pieces of plank (fastened together by two cross-pieces nailed athwart,) shaped around, to fit close in the vat. It is pierced with holes large enough for two or three grapes to pass at once; and the holes so close that it is a perfect riddle. The false bottom can be raised or put down by the hand, if made properly and not too tight. The stemmer throws in upon it several clusters, and shakes and rubs them in all directions until the stems are left bare. He puts in but a few clusters at a time, that the grapes may escape the more easily. A handy workman will clean by this means from 1000 to 2000 gallons in a day.

In some places they make use of an instrument like a hay-fork, which the workman shakes and moves circularly in the vat among the grapes. By doing it very rapidly, he removes the fruit from the stem and collects the stems at the surface, from which he removes them with his hand. Some also stem with a common willow sieve, the bands of which are from 3 to 3½ inches a part, and the brim plaited uncommonly thick and strong.

White grapes ought not be stemmed; it is observed that wine from such is less alcoholic and more apt to become turbid.

(*To be continued.*)

(From late English papers.)

THE VINTAGE OF 1828.

In this wine-drinking age it may be satisfactory to the lovers of *château margot*, *lafitte*, and the genuine *œil de perdrix*, to learn that there has been no falling off in the quantity of the produce of those luxuries this season; and that the quality, although not quite so fine as that of the vintage of the comet, is yet good enough to make it worth the while of the importer to lay them in his cellar for future consumption. An intelligent friend, for whose taste in these matters we have great regard, informs us that the abundance of the ordinary French wines has been such as to render it necessary to destroy a great part of the produce for want of casks to put it in; and that the better sort of wines, although they have not yet fallen in price, must, ere long, be sold at a reduced rate, as the quantity warehoused renders the stock on hand of much less value. In Champagne, such has been the abundance of the vintage, that wines of the present year, that very good wine, which was sold last year at 30 fr per dozen, can now be had for 20 fr; and it is a fact, that a large consignment of *vin de champagne* has reached this country at 24s. per dozen, exclusive of duty. In what is called *premiere qualite*, the growers still ask 30 to 35 francs per dozen; but of this sort there is but little in the English market, for in no sort of wine is it so difficult for the ordinary drinker to detect the varieties of quality, as in the white effervescing wines of Champagne. A very large proportion of the wines sold here and in the Netherlands as *vin de Champagne*, is merely the light white wines of Burgundy, to which a body has been given by the admixture of the white wine of Spanish Estremadura, or the inferior sorts of Lisbon, which are prepared on the spot for this commerce, by a stoppage of the fermenting process; but a nefarious trade is also carried on with some parts of the world, by the exportation of a stuff called *champagne*, which is merely the commonest wine of the environs of Paris, rendered sweet with sugar of lead, and effervescing by means of a chemical management. It seems, also, that a great deal of claret which we receive is the ordinary *vin de Bordeaux*, to which a body is given by adding one-fourth of the red Spanish wine grown near Talavera de la Reyna—a wine really good and wholesome, but which is sold on the spot at the rate of less than 2d. per quart, and which, when it arrives at Bordeaux, does not cost the importer more than 3d. To this a flavour much resembling the true *bouquet* of the best *clairet*, or claret, is given, by the addition of orrice root, and other drugs, perfectly harmless in themselves, and it is then exported to England.—In Portugal, the vintage has, on the whole, been good, but the quality is not remarkably fine. The wine called Collaris, from the name of the village near which it is grown, is much in demand for the French market. It is a very fair kind of claret, with a port body, but until lately it was so little esteemed in Portugal that it might be purchased at less than 8d. English per bottle. It cannot now be had good under double that sum. It seems, from the information which has been given to us, that great improvements have lately been made in the production of the wines of Spanish Estremadura, and that ere long some very good samples may be expected in the English market. Up to the present time these wines have had an earthy flavour, which was very disagreeable to an English palate; but the greatest fault has been in the mode of transporting them to the coast. This being done in goat and pig-skins, the taste of which never can be got rid of thoroughly enough, until they are nearly worn out with use, the wine is spoiled for drinking to all but a Spaniard, who would perhaps consider the absence of the goat and pig flavour as a great defect. Indeed, the *thong* upon the palate is a boast in sherries, and why not in other wines? [*Literary Gazette.*

RURAL ECONOMY.

(For the American Farmer.)

BEEF.

How to keep Beef.—A country housekeeper, to whom a sirloin or a steak is not an every-day treat, has been taught, by necessity, *how to keep beef;* an art unknown in towns, where daily access can be had to markets; but it is a most valuable secret, equal to that of *keeping venison*, so highly prized by the Quins and aldermen of England; and I here propose, without the prospect of any other reward than the hope of an honest fame, to communicate it to the American public.

Beef is never fit to be eaten in steaks until a week after being killed. If a piece of beef is suspended by a hook and string in a dry cellar, so as not to touch the wall, it will, in our hot climate, in the hottest season of summer, keep from one to two weeks, without a particle of salt; and in winter it will keep from eight to ten weeks. I have this winter kept it two months, with a constant and great improvement to the last, and have no doubt I might, with increasing benefit, have kept it for a month longer. No one, without the proof, can believe how astonishingly it will improve in tenderness and flavour, after being kept a due length of time; and it doubtless is much more wholesome than the recent, rank, tough beef, that is laboriously masticated to become a cause of dyspepsia in some, and bilious fevers in others, as the town doctors assure us. I beg to recommend this keeping of beef to all housekeepers in town and country, satisfied that after one fair trial, they would no more feed on a recently slaughtered ox than they would on an Abyssinian steak with Caffrarian garnishments. But they must not forget the excellent condiment, for which a recipe may be found in vol. ix. page 191 of the American Farmer, under the name of "*Tomato ketchup*," now better known, by way of eminence, as "*Cousin Tab's ketchup;*" an appellation by which it will probably be as celebrated in future ages, as will the grand discovery, which is here made known, of keeping beef—associating in fame and honour, the two names of James Quin (the venison epicure,) and COUSIN TABITHA.

P. S. Freezing meat (a practice not advised,) preserves it in one state without much improvement.

INTERNAL IMPROVEMENT.

LONG'S RAIL ROAD MANUAL.

[A perusal of this work has enabled us to form some idea of its novelty and usefulness.—Its "design," to use the language of the author, "is to place in the pocket of the Engineer, a brief and perspicuous compend of easy rules, that may serve as a directory, to guide him in tracing the route of a Rail-road."

The various subjects connected with the important business of surveying, and designating the route of a Rail road, both with respect to the horizontal curvatures and vertical deflections unavoidable in adapting the line of *location* to the natural surface of the ground, are discussed with brevity and precision, and in a manner no less novel than useful. A set of views and principles hitherto regarded as theoretical, rather than practical, appear to have been introduced and successfully applied. A variety of results hitherto arrived at by intricate and laborious mathematical investigations, are here exhibited in their plainest and most simple forms.

We shall conclude our remarks on this useful *Vade mecum*, by the following quotation, embracing a subject of particular interest, not only in reference to Rail-roads, but to mechanics generally.]

"We shall conclude this chapter (chapter iv.) with a few observations on the means of overcoming resistance upon Rail-roads, and on the adhesion of the wheels to the rails.

The means employed for this purpose are usually denominated *Motive power*, which is produced by the agency of animals, Steam or Water, and which by common consent, is measured by the average performance of an ordinary horse labouring in a manner to produce the *greatest useful effect*, which last involves, not only the intensity but the duration of his labour.

This subject, viz: the *greatest useful effect* resulting from the labour of a horse of the description just mentioned, has given rise to much inquiry and laborious investigation, the mean result of which may be stated as follows, viz: that an ordinary horse moving at the rate of 2 miles per hour, and 10 hours per day, is able to exert during that portion of the day, a constant stress, draft, or traction of 112 pounds:—that the same horse moving at the rate of 4 miles per hour and 5 hours per day, is able to exert a constant draft of 56 pounds:—and, with a velocity of eight miles an hour during 2½ hours of each day his force is equal only to 28 pounds.

In order to estimate the efficiency of Steam Power compared with that of a horse as above stated, the constant or equated pressure of the Steam upon the Pistons being given;—determine the ratio between the distance through which the Pistons move, and that through which the carriage or load moves at the same time; multiply two thirds* of the given pressure in pounds by this ratio, and this product by the speed in miles per hour, with which the carriage moves; divide the last product by 112, and the quotient will be the number of horses *actually hitched* equivalent to the given Steam power. Moreover, multiply the number thus found, by 2.4 when the speed is 2 miles per hour, by 4.8, for 4 miles per hour; by 9.6 for 8 miles per hour, &c., and we have results indicating the number of horses equivalent to a given Steam power acting continuously at different rates of speed,—no allowance being made in either case, for unavoidable detentions, on the road.

The following Tabular Statements exhibit the comparative efficiency of Animal and Steam power continually in action at different rates of speed.

Statements.	Speed in miles per hour.	Daily distance in miles.	Comparative efficiency of Animal and Steam Power.		Daily duration of the labour of a horse.		Traction of a horse at different rates of speed.
			H. p'r.	S. p'r.			
No.	miles.	miles.	horses.	horses.	h.	m.	pounds
1	2	48	2.4	1	10	00	112
2	3	72	5.4	1.5	6	40	74.6
3	4	96	9.6	2	5	00	56
4	5	120	15	2.5	4	00	44.3
5	6	144	21.6	3	3	20	37.3
6	7	168	29.4	3.5	2	51	32
7	8	192	38.4	4	2	30	28

The foregoing statements are predicated on the supposition that the Power partakes of the locomotion of its load.

In case of its being applied through the intervention of Stationary Machinery, and in such a manner that a horse, moving at the rate of two miles per hour, could impart to the load, any other speed that might be required, the results of both descriptions of power would be precisely similar, due allowance being made for the necessary intermissions of animal labour.

Water Power may be estimated in the following manner: Find the ratio between the perpendicular height of the water-fall, and the length of the Plane or road upon which it is to operate;—multiply four fifths† of the weight of water in pounds by this ratio (the quantity of water taken into the estimate, being equal to a column whose height is the perpendicular fall; and whose tranverse area, is equal to that of the constant volume of the stream independent of its current)—and this product by the speed in miles per hour; and proceed as in the foregoing computation for Steam power.

The adhesion of the wheels to the rails, being the means employed to resist the too rapid descent of a load upon Inclined Planes and to reduce the momentum of a moving train of carriages, deserves at least a passing notice, on this occasion.

According to the experiments of Mr. N. Wood, (See Wood on Rail Roads, p. 245,) the adhesion produced between the wheels and the rails by a load resting thereon, is equivalent to 1-25 part of the whole weight of the carriage and its load, "in the worst state of the road,"—We are inclined to think this proportion rather too small for our present purpose, and prefer 1-20 of the entire load, (which is nearly equal to its tendency to descend on a Plane whose inclination is 3 degrees,) as a more accurate expression for the adhesion of the wheels in all states of the road and weather, frost and snow excepted.

When the tendency in the direction of a Plane, exceeds the adhesion of the wheels, the descent of the load must be regulated by stationary Brakes.

When the tendency as above exceeds the friction of the carriage and is less than the adhesion of the wheels, the descent may be regulated by Brakes or Convoys attached to the carriages.

When the tendency and friction are equal to each other, the descent will be spontaneously regulated; but when the latter exceeds the former the descent must be effected by the application of extraneous power."

LADIES' DEPARTMENT.

THE WEDDING.

It was a fresh and balmy morning in the delightful month of May, and nature seemed to have forgotten the ravages of winter, and smiled like a young bride, decorated in the blooms of youth and beauty, and waiting to welcome the embrace of summer. The meadows were gay with luxuriant verdure; the flowers hailed the genial influence of the reviving season, and loaded the air with sweets; and the young birds participating in the general joy, mingled their songs with the voice of the gentle zephyrs. But the beauty of nature was forgotten, the songs of the birds unheard, for Lucy Brooks was to be married that day, and every head in Alesbury was full of the important subject. The girls, in merry groupes, might be seen at every porch; discussing the various items of arrangement, and making their combined preparations for the scene, forgetful of the hour of dinner; and here and there a straggling gallant reconnoitered the ground to see how things were going forward, or culled for a favourite fair one a bunch of pretty flowers to decorate her hair. It seemed as though all the world fancies of happiness, was that morning summed up in the glorious thought of outrivalling in gaiety the gayest.

The bride, a pretty girl of seventeen, proud of the noise and bustle she was making in the village, her fine wedding dress all ready, and a bride's-maid at her not, perfectly satisfied with herself and every body else, waited with little apparent anxiety for time to bring the appointed hour. The bright dreams of a holiday life were all before her.

Lucy had always been, on more than one account, the admiration of the gay ones of the village. She was of a light, airy form, and the fine proportions of her person, and the attractive beauty of her face, were always displayed to the best possible advantage. There was a peculiar neatness ever remarked in her dress; every thing about her was *becoming*, (a word which signifies much,) and it was often said that Lucy would make a delightful wife; she was so smart, so genteel, and withal so perfectly economical—a consideration of vast weight among the old fashioned people particularly, though the young, even in those days, seemed disposed to attach rather less consequence to it.

The morning preparations were succeeded by the evening's gathering; and before the sun had gone behind the high mountains that girdled the western horizon, the rural home of Farmer Brooks presented a spectacle that would have made a cold heart warm, and even age feel young again. The formal ceremonies of fashionable cities had not yet broken in upon the simplicity of early customs; and more than a score of pretty girls, in white, crowned with flowers and decorated with green, sported on the grass before the door. The bride herself was in the midst of them, and each with a gallant at her side. The more aged amused themselves by crowding the door and windows, and looking on the sport; while all within was preparation for the wedding supper.

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* In estimating the efficiency of a Steam Engine, the friction of the machinery is usually regarded as equivalent to a deduction of one third part of the actual force or pressure of the Steam.

† One fifth of the weight is deducted on account of Friction of Machinery, *Vis inertia* of Water, &c.

Many an eye then turned and turned again to the young couple, whose hearts and hands were now to be joined indissolubly. She was a beautiful bride, and her young intended husband viewed her with a look of triumphant pride. He loved her because she was beautiful; because he thought her the prettiest in the village; because she was young, and lively, and admired. And though still she made many an effort to be coy, and tried to put on a care-for-nobody kind of a look, a truant glance often strayed towards him, which plainly told, that even if she did not admire especially his manly form and frank and open manner, she at least loved him because he loved her.

When the all-important hour had at length arrived, the young people were called in, and the worthy squire, putting on his spectacles, performed the ceremony with all the gravity imaginable, and with a dexterity and promptness withal, that was doubtless sharpened by the savoury smell of sundry roasted ducks and turkies, which came cheeringly from the adjoining apartment. The pretty bride and her chosen consort were pronounced man and wife; their hands were joined, and the mutual promises given without any unnecessary circumlocution. No fainting, no tears, no whimpering; a glorious kiss followed; and then, forthwith, the supper; as important a matter, in the estimation of the cool and calculating among the company, as any other.

I shall leave them there for the present. I never dare follow much further the course of things on such occasions; and at a single period pass to the counter-part of the story.

I rode, a year afterwards, by a prettily situated farm house, half secluded from view by a cluster of venerable oaks. It was the residence of Lucy and her husband; and the strong propensity I felt to see my old friend, induced me to call a moment. I found her in the midst of business, though not busy. She was a wife now; and she had fallen into that most fatal error, carelessness of appearance. The floor was strewed with rubbish; every thing was out of place; she appeared perfectly slovenly in her person; and when I gazed on her, I could not but recall to mind the pretty, neat, sprightly girl that won Joe Miller's affections, and contrast her appearance with the same pretty girl, now Joe Miller's wife. She was but a year older; yet ten years less attractive. I would have given my eyes to have kissed her once, but the enchantment was gone. I wondered if her husband thought so.

I said Lucy had fallen into a sad error; and she is not the only one who has fallen into the same.—Her days of courtship over; the first young dream of love ended; married and settled down in life, she had forgotten that the charms that attract love in the first instance, are necessary to retain it; she thought as she had won a husband, it was not necessary to practise any of the means by which she won him, to secure his affections.

I had been sitting but a few minutes when Joe came in and welcomed me, in his frank and cordial manner; but I saw there was a cloud upon his brow; that he felt hurt. He looked round at the wild confusion that reigned in the room, and then at her. "Lucy," said he, mildly, "I wish you would put things in a little order; I do dislike such confusion." She coloured, and leaving her seat, flirted off in a pet; Joe looked after her as she slammed the door, and gave a deep sigh, that seemed to say, "Alas! poor Joe Miller!" And from my heart I could have responded it.

The young couple had set out in life with fine prospects. Joe was an industrious, sensible, good hearted fellow as one in a hundred; and Lucy was a sweet girl. She is still pretty; but that very habit of carelessness of dress, and mismanagement in her house, has lost her a world of pleasure and satisfaction.

BEAUTY.

High objects it is true, attract the sight, but it looks up with pain on craggy rocks and barren mountains; and continues not intent on any subject which is wanting in shades and greens to entertain it. Beauty in courts is so necessary to the young, that those who are without it seem to be there to no other purpose, than to wait on the triumphs of the fair; to attend their motions in obscurity, as the moon and stars do the sun by day; or at best, to be the refuge of those hearts, which others have despised, and by the unworthiness of both, to give and take a miserable comfort. But as needful as beauty is, virtue and honour are yet more so. The reign of it without their support is unsafe and short, like that of tyrants. Every sun which looks on beauty wastes it; and when once it is decayed, the repairs of art are of as short a continuance as the after spring, when the sun is going farther off.

SPORTING OLIO.

☞ Extraordinary Race of Beagles.—We wish to put on record the following scrap, to preserve it for the curiosity and use of our friends who are fond of that most exhilirating and delightful of all rural exercises—*the chase*. From concurrent testimony there is assuredly something remarkable in this race of dogs, in the possession of Mr. Winston, a hearty and liberal sportsman near Lynchburgh, Virginia—we mean as to their qualities of cold nose—*fleetness* and capacity to kill red foxes.

At a hunt in New Kent County, in Virginia, this winter the fox had run to fault a pack of hounds equal to any in the country. The best dogs could not hit it off, and the party were giving it up in despair, when one of them jeering a gentleman to whom Mr. Winston had sent one of his beagles, desired that in this dilemma, his famous beagle should be brought up. He was soon produced made his *hit*, and Reynard was soon after killed.

BEAGLE HOUND,

Imported by Mr. A. Robertson, from Liverpool, 1819,

Very small short haired dog, black and white, the black from the shoulders along the top of the back to the tail, the belly, legs, breast, throat, neck and tail white, yellow head and ears, with a blaze from the middle of the forehead to the nose, ears and nose small and pointed, bushy tail, and shorter than other hounds, fine fiery fierce eyes, small shrill chopping mouth, keeps a thick and constant cry when in chase, better bottom and much fleeter in mountains, than any other dog; the country around this is stocked with half and three quarter beagles they are considered better both for deer and foxes than any other kind of hound, the half beagle is the *coldest* dog I have ever seen, they generally hunt with the life and spirit of the pointer, but have not the *bottom* of the full beagle, though greatly superior to the hounds heretofore used in this part of the world, the stock is still pure and unmixed, and a pair of genuine puppies shall be furnished, the trained dogs could not be parted with, they are very uniformly alike, in size, colour, and voice, untireable in the chase and seldom fail in taking deer or foxes, the grey from three to thirty minutes, the red fox from thirty minutes to a whole day, depending upon the ground and start they get upon him.

E. Winston

INQUIRY.

[A very respectable gentleman makes the following inquiries, which we hope the gentleman alluded to will enable us to answer:]

Red House, N. C. March 29th 1829.

J. S. Skinner, Esq.

"Can you ascertain for me who is the author of a piece published in the 4th Vol. of the American Farmer, No. 49, and page 390, dated "Virginia February 14th," on the subject of Blood Horses. This piece has always attracted my attention and I have *repeatedly* read it over, and at each reading have been struck with the *justness* of the *sentiments*, cogency of his reasoning and correctness of the language. The Hon. John Randolph replied to it in the Farmer of 5th volume. If you know the author I would thank you for his name and place of residence, as I wish to correspond with him on the subject of blood-horses."

Extract of a letter to the Editor.

"The distemper had nearly destroyed my beagles; when I fortunately saw your recipe of *laudanum*, which cured them."

[N. B. A young dog lately recovered from the last stage of distemper. The person in whose care he was, said that he had been recommended as an *infallible remedy*, to give *two leaden bullets*. In this case he gave three small ones, and the dog speedily recovered. Our author, we must confess, is one of those men of fertile genius, who sometimes exercise in their conversation a marvellous control over facts! Yet the experiment is easily tried.)

Pedigrees of Celebrated Horses.

ECLIPSE

Was imported into America by Richard B. Hall, of Maryland.

Pedigree.—Eclipse (Sir John Shelly's *sorrel colt;*) was gotten by Col. O'Kelly's famous running horse Eclipse, and bred by Sir John Shelly; his dam Phebe, full sister to Apollo. Phebe was gotten by Regulus, her dam by Cottingham, her grandam by Snake, her great grandam by Lord Carlisle's Turk.

N. B. This horse (Eclipse,) won several plates and matches. Richard Tattersall.

16th February, 1784.

Hall's Eclipse was the sire of Nontooka.

TELEGRAPH.

Pedigree.—Telegraph (bred by Mr. Loughborough,) was got by the imported horse Spread Eagle; his dam was an imported mare brought to this country by Parkinson, and gotten by Precipitate out of a thorough bred mare. Precipitate by Mercury—Herod--Matchem—Squirt mare, dam of Pumpkin.

TELEGRAPH.

Pedigree.—Telegraph (bred by Mr. Baldock,) was gotten by Sir Peter Teazle; his dam Fame, bred by Mr. Vernon, got by Pantaloon out of the dam of Diomed by Spectator. Sir Peter Teazle by Highflyer. Pantaloon by Matchem, out of Curiosity—Snap, Regulus—Bartlet's Childers—Honeywood's Arabian dam of the Two True Blues—Diomed by Florizel, imported by J. Homes—Spectator by Crab—by Partner—Bolton—Darley's Arabian.

CLIFDEN,

Lately imported by W. T., was bred by the Earl of Derby, and sold when a colt to Sir John Lade, for 500 guineas, who ran him in the year 1792, in which year he won ten races out of twelve. He was rode twice by Sir John Lade, and once by Lord Barrymore.—Clifden is 11 years old.

Clifden was gotten by Alfred, out of an own sister to the Duke of Queensbury's B. H. Mulberry, she was gotten by Florizel out of a Matchem mare belonging to Sir James Pennyman.

Alfred was gotten by Matchem, out of a snap mare—her dam by the Cullen Arabian—Grisewood's Lady Thigh by Partner—Greyhound, (who was out of the Chillaby Barb, out of a natural Barb mare,) Sophonisba's dam by the Curwen bay barb—Lord D'Arcy's chestnut Arabian—White Shirt—Old Montague mare. Alfred by Matchem—Rockingham's dam by Matchem. Alfred's dam by Snap—Snapdragon's (dam of old Selima,) dam by Snap—old Medley's dam by Snap—Fitzherod's (sire of Mufti) dam by Snap. Clifden's dam by Florizel—Old Diomed by Florizel. Florizel by old Herod—Highflyer, Punch, &c. by old Herod.

December 1*st*, 1799.

OLD CUB

Was gotten by Yorick; his dam by Silver Legs; his grandam by the English Cub, son of Old Fox and the Warlock Galloway; her dam by Torismond son of Bolton Sterling and young Cade's dam; her grandam by brother to Snip; her great grandam by Mogul, brother to Babraham; her g. g. grandam by Sweepstakes, sire to the dam of Whistle Jacket; her g. g. g. grandam by Bay Bolton, and sister to Stover; her g. g. g. g. grandam by Curwen's Bay Barb; her g. g. g. g. g. grandam by Curwen's Old Spot; her g. g. g. g. g. g. grandam by the white legged Lowther Barb. David Brinton.

Sir,—The following is the *pedigree* of the sorrel mare you received of me.

ANDROMACHE,

(The name of the mare,) was gotten by Old Cub; her dam by Sweeper. Sweeper by Dr. Hamilton's imported Figure; her grandam Clarissa, by Dr. Hamilton's imported Ranger. Clarissa was also the dam of the noted running horse Shakspeare; her great grandam by Mr. Galloway's Selim, out of Capt. Campbell's full-bred imported mare Maggy Lauder.

I hereby certify that Capt. Benjamin Wilson, of Baltimore county, bred the above mare, and at the time I purchased her of him he gave me the above pedigree. Larkin H. Smith.

December 28, 1805.

P. S. There is no pedigree (I know of) superior to the above in point of blood. L. H. S.

I certify that the above pedigree was given to me when I purchased the mare.

William Thornton.

Washington City, October 27, 1808.

The foregoing mare was this season stinted by my capital young horse Eclipse Herod, and I believe she is in foal.

ECLIPSE HEROD

Was gotten by my imported horse Driver; his dam, (my famous imported mare Miss Bennington, which at two years old was tried against the celebrated running horse Bennington, out of the same dam, but gotten by the Prince of Wales's Rockingham, and she beat him with ease), by the Prince of Wales's Escape, the fleetest horse in England—(He was sold to Prince Orloff for [illegible]teen hundred pounds sterling, and carried to Russia;) his grandam by Lord Percy's Arabian; his great grandam, Louisa's dam, by King Herod; his g. g. grandam by Snap; his g. g. g. grandam Muse and Chalkstone's dam by Shepherd's Crab; his g. g. g. g. grandam Miss Meredith by Cade, out of the Little Hartley mare; his g. g. g. g. g. grandam by Bartlett's Childers, full brother to Flying Childers, out of the dam of the Large Hartley mare; his g. g. g. g. g. g. grandam Flying Whig by Williams's Woodstock Arabian; his g. g. g. g. g. g. g. grandam by the St. Victor Barb out of a daughter of Whynot, son of the Fenwick Barb. William Thornton.

Washington City, Oct. 27, 1808.

PUNCHINELLA.

Pedigree.—Punchinella was gotten by the Prince of Wales's Punch; her dam by Craigs's Highflyer, gotten by the famous Highflyer of Tattersall; her grandam by Hall's Union; her g. grandam by Galloway's Selim; her g. g. grandam the late Duke of Hamilton's Spot mare, by Mr. Lockart's grey horse Spot, which was a capital racer; her g. g. g. grandam was by Old Traveller; her g. g. g. g. grandam by Sedbury; her g. g. g. g. g. grandam by Cartouch; her g. g. g. g. g. g. grandam by Bartlett's Childers, (full brother to Flying Childers,) out of a natural Barb mare.

William Thornton.

Washington City, October 27, 1808.

The above mare is stinted by my capital young horse Eclipse Herod, and I believe in foal. W. T.

PUNCH.

Pedigree.-Punch belonged to the Prince of Wales, and was bred by Lord Sherburne; he was got by King Herod, sire of the Prince of Wales' Rockingham and Mr. Tattersall's Highflyer; his dam by old Marske, the sire of the famous Eclipse, Shark, Pretender, &c.; so that the blood of Eclipse and Highflyer are centred in Punch, which horses were never beat. His grandam by Lord Cullen's Arabian; his g. grandam by Regulus, which was by the Godolphin Arabian; his g. g. grandam by Routh's Black-Eyes; Black-Eyes by Crab, out of the Warlock Galloway.

N. B. I possess the above pedigree in the hand writing, with a certificate of the identity of the horse by Sir John Lade. William Thornton.

(Items from late English papers.)

List of Clubs in London, with the Number of Members.

Senior United Service Club, 1,500; Junior United Service Club, 1,500; Athenæum, 1,000; Union, 1,000; University, 1,000; Brookes's 500; Randle's, 500; White's, 500; Crockford's, 500; Albion, 400; Alfred, 500; Graham's, 500; Cocoa Tree, 500; Arthur's, 800; Wyndham's, 400; Guards, 400; Colonial, 400; St. James's, 400; Travellers's, 500; Oriental, 1,000; Stratford, 500;—Total number of members, 13,900.—*Morning paper.*

To the Editor of Bell's Life in London:

Sir,—Hearing that Mike, the Baker, wishes to fight me, I am willing to accommodate him for 50*l.*, but not less, in two months, and will meet him when and where he will appoint, to make a deposit of 10*l.* aside. Should he not agree to this, as I wish to have another shy in the Prize Ring previous to leaving it, I will fight either Solly Reubens or Peter Smith (Jem Burn's pupil,) on the same terms. An answer from either, complying with my terms, will oblige, Sir,

Your obedient servant,

Jan. 27, 1829. JACK LENNEY.

MISCELLANEOUS.

THE TARIFF.

We never recur to this stupendous scheme of pillage and extortion, without finding new and stronger views of its flagrant injustice to the Southern States, taking it even as a system of robbery as it is. Were it so framed as to operate on all parts of the country alike, we could bear up under its enormous oppression with more fortitude. But when we take into view the partiality of its operation, exhausting its most baleful influence as it does on the South, our native land, blighting the fairest prospects of our industrious farmers, blasting the hopes of our merchants, in short, rendering comparatively valueless, the rich productions of a fertile soil, and bounteous climate, heretofore the sources of wealth, comfort and independence to all classes of society, feelings are excited against the authors of this monstrous oppression to which we dare not give utterance.

What a state of things do the following facts exhibit!!!

In 1827 the total amount of exports of all sorts from the U. States, manufactures included, amounted to		$58,921,691
Of this sum the nonslaveholding States exported altogether only	$24,778,038	
The slave holding States exported	34,143,653	
		58,921,691

Such is the state of our exports for the year 1827.—Now the imports, it is well known, are paid for by means of these exports. And the chief revenue of the government arises from taxes on these imports. The slave holding States, therefore, furnish the means of raising the revenue of that year nearly in the proportion of 34 to 24. That is for every $24 paid into the Treasury by means of the industry of the non-slaving holding States, the slaveholding States paid $34.

Now see how this same revenue, to which the South contributes so largely, is spent. The estimated expenditures on works of internal improvement alone are as follows:

On works north of the Potomac,	$10,291,000
South of that river,	33,000

These facts cannot be disputed. They are taken from the speech of Mr. Mitchell, of South Carolina, on the Cumberland road bill, during the late session of Congress.

It requires very strong feelings of patriotism, and the exercise of all the philosophy we are master of, to keep down the spirit of rebellion, when we take such views as this of the situation of the Southern states. [*Georgia Journal.*

PORCELAIN MANUFACTORY.

The great Royal Manufactory of Porcelain, at Sevres, two leagues from Paris.—Extract, Jan. 6, 1829.

"You have doubtless heard of the great royal manufactory of Porcelain at Sevres. Having received, through the politeness of Mr. W———, a member of the national institution, a letter of introduction to Brogniart, the superintendent of the manufactory at Sevres, we determined to make a visit there, and take St. Cloud, which is hard by, at the same time. Accordingly we took our seats in the diligence at 10 o'clock in the morning and arrived at Sevres, which is two leagues from Paris, in about one hour. We immediately repaired to the manufactory, where, although Brogniart himself was absent, we found no difficulty in obtaining admission with our letter, a favour which, ordinarily, is not to be obtained. The Swiss, who served as our *conducteur*, was a very obliging sort of a man. He showed us through all the rooms, where the various processes for manufacturing the Porcelain were going on, from the moulding of the clay to the more delicate work of painting and burning it. I cannot stop to describe these now; and must also pass by the collection of ancient and modern Porcelains, the paintings on glass, the casts or imitations of ancient statues, &c. &c., all of which were extremely curious and interesting.

"We were finally conducted into three large halls, leading into each other, which served as a repository for the various productions of the manufactory. I can give you no conception of the richness, delicacy and beauty of the workmanship in some of the ware which is here exposed to view.—There is a service of china dishes in a long square morocco box, which is uncommonly beautiful. In the middle of each plate is a portrait of some one of the most celebrated musicians of Europe, and in the largest of all a figure of St. Cecilia playing on a viol, after a painting of Domenichino, which for expression, accuracy, and richness of colouring, exceeds the finest miniature painting I ever saw. There are two large secretaries of Porcelain, valued at more than 30,000 francs each, which are splendid specimens of the perfection to which the art of painting on Porcelain has reached in France. There are copies of some fine paintings by the first masters, such as Henri Quatre entering into Paris, the Feornarina of Raphael, &c. &c., which are inimitable.—The first, Henry IV. is estimated at 40,000 francs,—though it is only about 2 feet by 1 1-2 feet.—There are plates or dishes round the whole circumference of one room, containing views of all the principal cities, cathedrals, bridges and picturesque scenes in France. There are large vases, four or five feet in height, of blue and gold: I recollect one in particular, which turns on a pivot, and has painted round its circumference emblematical representations of the five senses, very beautiful."

THE FARMER.

Baltimore, Friday, April 10, 1829.

☞ [The writer of the following is a gentleman enjoying rare opportunities of observation, with judgment clear and discriminating.—He travels much as a man of business through different parts of the country, and has made himself familiar by much examination and reflection on the subject of the projected Rail-way from Owego to the Susquehanna. His views are worthy of particular attention; and information derived from him, as to details, is much to be relied upon.]

Mr. Skinner: *Owego, N. Y. April* 2, 1829.

Sir,—There is now in the Store-houses in this place a large quantity of Pork, Whiskey and other articles, brought from the counties adjoining the Cayuga Lake, destined for your market—The route down the valley of the Susquehanna to Baltimore, is found by experience of the merchants, preferable on many accounts to the route of the Grand Canal to the city of New-York; and this trade, although there is 29 miles of land carriage between the lake and the river, has continued to a greater or less extent ever since our Canal was completed. Does not this single fact prove conclusively, that the completion of the Rail road from the lake to this river, and of the great North and South Canal of Pennsylvania along the valley of the Susquehanna, will form a channel, through which, the varied and rich products of the fertile valley of the Lakes, or a great portion of them, will find their way to market? This opinion I have entertained for many years, and every year's experience and observation confirms it. The stock of our Rail-road is taken up by men in possession of ample means to go on with the work. The ice is now passing us, broken into fragments, by the pressure of the flood, which is of uncommon force: the snow in the woods is still near 12 inches deep, and the season uncommonly backward. The property destined for your market is to a very great amount, although the wheat and flour will fall short at least one half of the last year's supply. Many articles, such as lumber with its varieties will be increased.

Your sincere friend,
JOHN H. AVERY.

☞ White Onion Seed.—We have recently received a quantity of White Onion Seed, imported by a gentleman at the eastward from the Azores and intended for sale in the Baltimore market. Three seeds of this onion last year produced 7 lbs. 13 oz. of onions. They are very large and mild. The few seeds we had reserved for distribution have already been given out; but those who wish to obtain them, can do so of Messrs. Sinclair & Moore, who took the principal part of them.

☞ Gooseberry Bushes.—A gentleman, who has for seven years protected his gooseberry bushes from the disease, or insect, which is so destructive to this fine fruit, informs us, that the disease (which he thinks is an insect,) originates in a peculiar kind of moss, which is observable in spots on the stock and branches of the bush, and that whenever he finds it on them he immediately cuts off the limb. He has left with us several pieces of the bush with the moss on them, in which he entertains no doubt the egg of the insect is deposited. Since he began cutting off these infected limbs, he has had abundance of fine gooseberries, which he could seldom obtain before. It would be well to try the experiment at least.

☞ To be Farmed out, for the season, that very superior stallion John Hancock, from the stud, and of the best blood, of the Hon. John Randolph of Roanoke.

John Hancock was foaled on the 4th of July 1823, and will of course be six years old the 4th of July next.

Pedigree.—He is a capital grandson of Sir Archy, his sire Roanoke, Mr. Randolph's favorite horse. His dam Roanoka by Florizel, dam Cornelia by Chanticleer, Vanity by Celer, &c. Roanoke was got by Sir Archy out of Lady Bunbury, got by Trumpator, Theopha by Highflyer, Plaything by Matchem, Vixen by Regulus, &c.

The terms will be for a certain but very moderate sum, as the person to whom he may be let, will be required to keep and return him in the best order when reclaimed at any time after the season, and before the first of March next.

☞ Valentine.—The imported horse Valentine, is to stand the ensuing season at the Head of Wye, and at Easton, alternately, at $15 the season, and $20 to insure a foal. His pedigree, which proves him to be of the best blood in England, will be found in No. 29, Vol. 8, page 231, of the American Farmer.

☞ Baltimore Market.—There has been very little alteration in the prices of flour since our last. Howard street flour from stores may be considered worth $7 12½, and from wagons $6 87½.

☞ Silkworm Eggs. A friend to agricultural improvement has left at the office of the Farmer, a small parcel of silkworm eggs for gratuitous distribution, which we shall take pleasure in disposing of according to his wishes. Persons wanting them will do well to call immediately, as the warm weather will very soon hatch them.

Latest Foreign News.

[By arrivals at Boston, intelligence has been received from England to the 21st of February. The catholic question was the only topic of conversation and discussion in and out of Parliament. A bill had passed the commons for the suppression of the Catholic association of Ireland, and other similar societies, which however had been rendered unnecessary by the voluntary dissolation of the former, the object of its creation having been so nearly accomplished that its continuance was condered unnecessary.]

Russia and Turkey.—An Extraordinary supplement to the St. Petersburgh Gazette of Feb. 2, contains the following article:

According to an agreement made at the taking of Varna, the harem and the property of Jussuf Pacha of Seres, were to be delivered up to him, and till they should be given up we retained, as security, the family of Jussuf Pacha of Samacho, late Commandant of Varna. It was hardly to be expected that this condition would be fulfilled, as the Sultan had become so incensed against Jussuf Pacha, had caused him to be declared an outlaw, and confiscated his property. Nevertheless, the promise has been kept. At the end of December the Grand Vizier sent word to General Roth, that the harem and property of Jussuf Pacha had been brought to the River Kamtschik, to be delivered to persons sent by us, and at the same time requested that the hostages in our hands might be given up. The exchange was made in perfect order, and Jussuf Pacha's harem and property sent to him at Odessa.

According to the latest accounts, both our troops and those of the enemy were wholly inactive. Detachments of Cossacks traverse, without obstacle, the country about Tschernowod and Bazardjik, and also the road to Silistria, without having met with any thing, only in the Kamtschik, on the road from Varna to Bourgas, there is a small Turkish detachment of about 500 men.

Part of the Turkish troops in the fortresses on the Danube have dispersed, or have been sent into the villages, and the garrisons were so reduced that the Porte, convinced of the necessity of strengthening them, even in winter, had sent some troops from Shumla to Widdin, and to Rudschuk and Silistria. Tchapan Oglou had arrived from Anatolia, with 10,000 men, chiefly Asiastic cavalry. Tchapan Oglou, upon his arrival, immediately distributed his troops among the fortresses, he himself remaining with a small number at Shumla.

In Shumla too, only a small garrison remains, part having been sent to Widdin, and the remainder dismissed and dispersed. In that, as well as in all the other fortresses on the Danube, they find it very difficult to obtain provisions, and this obliges their commanders, either to quarter the troops in the villages, some of them at a great distance, or to dismiss them. In some places there is a sufficient stock of corn, but a great want of flour; and a scarcity of forage, in consequence of which the cavalry was in a bad condition.

In general, the Turkish troops are in a very distressed state, as, contrary to their custom, they have kept the field during the autumn, and even part of the winter. They have suffered severely from cold and want, and have lost a great number of horses, while the men have partly dispersed themselves, and have partly been from necessity dismissed by their Commanders.

It appears, therefore, quite impossible, that the Turks will undertake any thing before the spring, notwithstanding the reports that foreign newsmongers are not weary of spreading.

An official bulletin announces the capture by the Russians of Nicopolis, and the town of Tournoul.

The preparations for the next campaign were immense. Nicholas would command in person. He would go to Warsaw before the opening of the campaign, to receive the oath of allegiance. A convention was spoken of, which that government thinks of concluding with the United States of North America.

The Russian squadron in the Mediterranean has just been reinforced by a ship of the line, of seventy-four guns, and two frigates of the first class, so that it will now consist of nine ships of the line, six frigates, and a number of brigs and corvettes.

Greece.—The limits of Greece have at last been defined by the Representatives of the Allied Sovereigns, which, from the best authority, we understand to be as follows: On the Continent the line is to run from Arta to Volo. The islands called Cyclades are to be kept by the Greeks; Scio and Mitylene by the Turks. Some differences about Candia and Samos have arisen, it is left for the King of England to decide to which party they shall belong.

The private property of the Turks in countries given to the Greeks, is to be valued and paid for.

In like manner the property belonging to Greeks in the parts left to Turkey is to be valued and set off against the other. The government of Greece is to pay an annual tribute of one million and a half of piastres, or about £40,000, in lieu of all public Turkish property, which by these arrangements comes into its possession.

Portugal.—Accounts from Lisbon, state that measures for the overthrow of Don Miguel were so far advanced, that a confident expectation was entertained of the speedy restoration of the Constitutional system.

We have just learnt, on authority on which we can depend, that a tender has sailed from Plymouth with orders to our ships of Terceira, to permit any Portugese refugees who may arrive at the island, to land in safety and without interruption.

Markets—Liverpool, *Feb.* 21.

Cotton—The import this week is 15,455 bags, and the sales are not more than 7600 bags, at a decline generally of ⅛d per lb. viz: 110 Sea Islands at 10¾d to 13½d—20 Stained do at 6½d to 7d—4000 Boweds at 5¼d to 6½d—950 Orleans at 6d to 7¼d—420 Alabamas at 5 3-8d to 6 3-8d—550 Pernams at 7 3-8d to 7½d—810 Bahias and Maranhams at 6¾d to 7¼d—100 Demararas at 6 5-8d to 7¼d—20 Barbadoes at 7 3-8d—480 Egyptians at 7d to 8d—and 150 Surats at 3¾d to 4¾d per lb.

Rice—80 tcs Carolina sold to the trade at 17s 6d to 20s.

Corn Exchange.—The arrival for Tuesday's market contained a good supply of Wheat, Oats, Oatmeal, and Fluur, but a very moderate importation of other kinds of Grain. In Wheat, the buyers, induced by the great depression in value, came freely into the market, and there was a fair business done, at a decline, however, of 6d to 9d per 70 lbs. from our quotations of Tuesday last. In Oats there was also more doing, at an abatement of 3d to 4d per 45 lbs. from the currency of Tuesday se'nnight. Oatmeal and Flour 2s to 3s per sack, Malting Barley and Malt 2s to 3s per quarter lower. Indian Corn met an excessively dull sale, and must be quoted 1s to 2s per quarter cheaper.

Average price of Corn for the last week—Wheat, 73s 11d; Barley, 34s 3d; Oats, 23s 3d; Rye, 39s 7d.

Aggregate average of the six weeks which regulates duty—Wheat, 4s 7d; Barley, 35s 8d; Oats, 23s 9d; Rye, 42s.

Duty now payable on Foreign Corn—Wheat, 1s; Barley, 9s 4d; Oats, 12s 3d; Rye, 6s 6d.

Prices Current in New York, April 4.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .10 a .12; Upland, .8¾ a .10½; Alabama, .9 a 11. *Cotton Bagging*, Hemp .19 a .21; Flax .15 a .18. *Flax*, American .8 a .9¾. *Flaxseed*, rough, tierce ——; clean ——. *Flour*, New York, bbl. 7.25; Canal 6.00 a 8.25; Baltimore Howard street, 7.62½; Richmond city mills, 7.25 a 7.37½; country, 7.19 a 7.25; Alexandria, 7.25 a 7.37½; Fredericksburg 7.25; Petersburg 7.25; Rye Flour, bbl. 3.75; Indian Meal, barrel 2.87½; bhd. 14.50 a 15.00. *Grain*, Wheat, North River —; Virginia 1.50 a 1.55; N. Carolina 1.50 a 1.53; Rye, North, .70; Corn, North, .53 a .55; Barley, .53 a .55; Oats, South and North, .31 a .36; Peas, white dry 7 bush. 4.00; Beans, 7 bush. 8.00 a 9.00. *Provisions*, Beef, mess 9.25 a 9.75; prime 7.25 a 7.75; cargo 5.50; Butter, N. York, 12½ a 16; shipping, .8 a .11; Lard, .6 a .6½; Pork, mess 12.50 a 13.00; prime 9.75 a 10.00; cargo 8.50 a 8.75; Hams, Virginia .9 a .10; Northern .9 a .10. *Rice* .3 a .3¼; Whiskey, rye, per gall. .24; Cider Brandy .30 a .33. *Tobacco*, Virginia .3½ a .6½; Kentucky, .3¾ a .6½. *Wool*, Merino, American fleece, .32 a .38; Pulled, .32 a .35; common, .18 a .25.

Prices Current in Philadelphia, April 7.

Bees-wax, yellow .23 a .24; *Beans*, bushel $1.25 a 1.50; *Beef*, mess 10 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .9 a .9½, No. 2, .5 a .6; *Cotton*, New Orleans .11 a .13, Upland .9 a .10½, Tennessee .9 a .10½, Alabama .9 a 10½; *Feathers*, Southern .33 a .34, Western .31 a .32; *Flax* .8 a .6½. *Flour*, superfine 7.50; fine 7.00; Rye 3.25; Cornmeal, hds. 12.00, bls. 2.50; *Flaxseed*, cask 10.00, bu. 1.30; *Grain*, Wheat 1.50; Rye .50 a .60, Corn l. c. white, .41 a .43, l. c. yellow. .42 a .44, u. c. round .50, Oats .25 a .33, Barley, Pa. .45 a .50; do. Eastern, .55; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western 7; *Hemp*, 235 a 240; *Lard*, .6 a .8½; *Oil*, linseed .79 a .80; *Pork*, mess 13.00 a 13.50, prime 12, cargo 10.25 a 10.50; *Rice*, 3.00 a 3.75; *Tobacco*, Kentucky .4 a .7, Virginia .4½ a .7; *Wool*, common washed lb. .28 a .30, half blood .30 a .32, three quarters blood .33 a .35, full blood .36 a .40, unwashed, generally 10 cents less, according to quality.

RARE PLANTS, &c.

WM. PRINCE, proprietor of the Linnæan Botanic Garden near New York, offers for sale Plants of Olives, Green and Bohea Tea, Coffee, Cinnamon, Guava, Pimento, Cassia, Mango, Banana, Plantain, Cocoa Nut, Mammee, Calabash Tree, Mahogany, Cashew Nut, Soursop, Rinyou, Cherimoyer, India Papaw, True Caper, St. John's Bread, Horse Radish Tree, Custard Apple, Rose Apple of India, Bread Fruit, and other Tropical Fruits, the India Rubber Tree, and Sacred Banyan of India.

Also, 3000 plants of the Camellia Japonica or Japan Rose, of above 50 varieties and of all sizes, at low prices.

The Cheirostemon or Hand Flower of Mexico, and Astrapea Wallichi, one of the most splendid plants of the East Indies; Banksias in great variety, &c. &c.

Catalogues may be obtained, *gratis*, of Gideon B. Smith, agent for the proprietor, at the office of the American Farmer, Baltimore, and orders left with him will meet with attention.

HEMP AND OTHER SEEDS.

The subscriber has on hand one barrel of very fine HEMP SEED, just received from Kentucky. He has also the white Italian MULBERRY SEED, of superior quality; and likewise white English and Mercer POTATOES for seed, and a very good supply of the Messrs. Landreth's superior GARDEN SEEDS, each paper bearing the Messrs. Landreth's name. Warranted Ploughs, Cultivators, Patent Cylindrical and Dutch Cutting Boxes, Wheat Fans, and other Agricultural Implements, on hand as usual, of his own manufacture, and will be warranted as good as any implements of their kind in the state. Extra Mould Boards, Heels and Points for Davis' patent Ploughs, are kept constantly on hand for sale, to supply the place of those worn out on ploughs made by Mr. Davis or any of his agents, but will not be furnished on any terms to be made into new ploughs by other workmen than agents for Mr. Davis.

All orders, post paid, will meet with prompt attention.

JONATHAN S. EASTMAN,
No 36 West Pratt-st. between Hanover and Charles

ALMANAC.

1829. April.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 11	5	32	6	28	12	56	1	16
Sunday,........ 12	5	31	6	29	12	58	1	55
Monday,....... 13	5	30	6	30	13	0	2	31
Tuesday,...... 14	5	28	6	32	13	4	3	3
Wednesday,.. 15	5	27	6	33	13	6	3	34
Thursday,..... 16	5	26	6	34	13	8	4	5
Friday,......... 17	5	25	6	35	13	10	4	35

Moon, First Quarter, 10th, 9 h. 0 m. Ev.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents. No. 4, Bowly's wharf.

Tobacco.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 6.00—red, 5.00 *a* 8.00—fine red, 8.00 *a* 10.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red 8.00 *a* 12.00—fine yellow 10.00 *a* 20.00—Rappahannock, 4.00 *a* 6.00—Kentucky, common 5.00 *a* 7.00—wrapping, 6.00 *a* 8.00.

Flour—best white wheat family, $8.00—superfine Howard-st. (sales) 7 *a* 7.25; city mills, 6 75 *a* 7.00; Susqu. 6.75 *a* 7.00—Corn Meal, bbl. 2.50—Grain, best red wheat, 1.40 *a* 1.50—best white do. 1.60 *a* 1.70—ord. to good, 1.30 *a* 1.40—Corn, .38 *a* .40—Rye, .45 *a* .50—Oats, .26 *a* .28—Beans, 1.00 *a* 1.25—Peas, .55 *a* .60—Clover seed, 4.00 *a* 4.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—Barley, .45 *a* .50—Flaxseed, 1.00—Cotton, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alabama, .10 *a* .11 Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .12—Whiskey, hhds. 1st pf. .21 *a* .22—in bbls. 23—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 3.25; No. 2, 2.87½ *a* 3—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Baltimore cured, new, .9½ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .29—Plaster Paris, cargo price per ton, $5, ground, 1.25 bbl.; grass fed prime Beef, 3.50 *a* 5.00.

Marketing.—Apples, bush. 2.50 *a* 3.00; Pheasants, pair, .75; Squabs, 18¾; Rabbits, .12½; Turkies, each, 1.12½ *a* 1.25; Butter, lb. .25 *a* 37½; Eggs, .11 *a* .12½; Potatoes, Irish, bushel .50; Fowls, per dozen 3 *a* 3.75; Ducks, doz. 3.00 *a* 3.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7· Pork, .6; young Pigs, dressed, .75 *a* .87½; Sausages, lb. .8; Onions, bush. .50; Beets, bush. 1.00; Turnips, bush. .25; Partridges, .6¼ each; Terrapins, 4.00 *a* 4.50 per doz; Pork, 5.50 *a* 6.00 cwt.; prime Beef, on hoof, 5.50 *a* 6.00.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets, where printing of every description is neatly executed.

AGRICULTURE.

(From the Selma Courier.)

SUGAR.

Copy of a letter addressed to Robert R. Harwell, Esq. of Jackson, Alabama.

Dear Sir,—I returned last night from Attakapas, after an absence since early in May last, west of the Mississippi, for Arkansas and Louisiana. Having passed some time at the house of a friend and relative in Attakapas, I had the best opportunity of seeing the process of manufacturing sugar, and the cultivation of the cane, and was much delighted with it. Those who are engaged in this business are thriving, and the value of their lands constantly improving. In confirmation of this, there have been in Attakapas three hundred additional sugar works erected. From those circumstances, I determined to advise my friends and acquaintances, and endeavour to urge them to the culture of the sugar cane, and that without delay. Had I not heard you were from home, I should have called on you to-day. As you have fine lands for the business, I am sure you will profit by information on the subject. It is only necessary to have correct information, to induce every one living south of latitude 33, who have good lands, or who can get them, to make sugar. The business is healthy, the labour far less than in the cotton crop, and can be as easily cultivated as corn after it is planted. The crop is finished early in June, like corn, and you have leisure during the heat of summer, and till October or November, when they begin to cut, grind and boil. This last takes four weeks or more, and is viewed rather as a frolic desired by the hands than dreaded. There is a great error in the public opinion, where they are unacquainted, that it takes a large capital and a great number of hands to make sugar. A man last season in Lafourche, with the assistance of two little sons, ten and eleven year of age, and a negro girl about the same age, made sugar which he sold for $2250, clear of all expenses; but, as is customary, there are some help to cut, grind and boil, (which has to be carried on all at once, to keep the juice from souring,) and the molasses more than paid expenses. The same man made the rollers, to grind, of *live oak*, and his whole expense, besides the kettles, did not exceed thirty dollars.

Two brothers, this season, in Attakapas, with their own labour, (being opposed to slave labour,) made 20 acres of creole cane, which will make 36 or 40 hogsheads of sugar. They were entirely done grinding when I left there, and I understand they will overpay for help to harvest, with the molasses. Their profit will amount at least to $2500. But these are particular cases: one hand can and does, in ordinary cases, cultivate four acres with ease, besides corn and other necessaries. One acre of good creole cane will make two hogsheads of sugar of 1000 lbs. each, which at 7 cents per lb. is worth $140. Four acres, 8000 lbs.—560 dollars. From the best information I could get, 500 dollars to the hand is the common product. As to the success of the cane in this part, it is beyond doubt. I saw cane of three kinds, viz: the Ribband, the Creole, and the Owhyhee, well matured in Sept., at Judge Bry's, in Onachita, in latitude 32° 30. It has matured, wherever tried, south of latitude 33°, from South Carolina to Louisiana. Since at this place I have seen a fair sample of the ribband cane on the farm of Samuel B. Shields, Esq. on the bank of the Tombeckbe, within fifty paces of the federal road from Washington to New Orleans. The seed or stalk, from which this cane grew, Mr. Shields tells me, were sent to him by his now deceased brother, Thomas Shields, from New Orleans. There were three flour barrels of the slips of the seed cane. It was planted on the 15th of March last—from mis information too shallow and too thick, or close. The ground was cleared in 1812, and never manured; was broken up and planted in drills, cane laid laterally; after planting it was not ploughed, but chopped over twice. The cane was sufficiently matured to cut early in November. Mr. Shields tells me he has counted, and cut as many as fourteen stalks from one single eye, or joint, and from ten to eighteen joints on each *stalk*. From the product of this little spot, he has planted at least two acres. From the uncommonly warm weather, it is now coming up; that is, sprouts from the stubble, or *rattoon*, as the sugar planters call it. I have seen a few stalks of this cane, that are within a few paces from whence I write, which were left standing to see the effect which frost might have on it, *and to give to friends*. I have examined it closely, and believe it equal to any ribband cane I ever saw in Louisiana.

The ribband cane is sold this season at Attakapas, for seed, as it stands in the field, at 200 dolls. per acre. The ribband cane is greatly preferred, every where, to the creole, or any other kind. It is larger, and makes from three to four hogsheads per acre, grows farther north, and matures at least one month earlier. It is smooth, without those annoying prickles on the leaves of the creole cane, and is not injured so much as the latter, by being blown down by storms, as it will ripen after it has fallen on the ground. All are trying to get the ribband cane for seed. As I believe this to be a most important subject, and the culture to be the most likely to promote the interest and prosperity of the southern part of the United States, and is so little understood, I give such details of the culture and manufacture of sugar, as my opportunity and time will permit.

The cane should be planted in a rich, dry soil, such as where the common cane grows. If the soil is wet, or subject to inundation, it should be leveed and ditched, to keep it dry. If the land has been cultivated in corn or cotton a year or two, the better; though worn out land is not good. It is ploughed deep in the fall or winter, and prepared as for cotton—drills three or four feet apart. Some plant the cane as they cut it in the fall, and cover it deep, (six or eight inches,) and remove the earth in the spring, or in February, before it comes up; most persons prefer February. The seed cane is cut before frost, as the eyes are easily injured by frost. They are put up in a kind of stack, with the buts of the stalks to the ground, and the tops leaning together till it spreads twenty or thirty feet wide, and the outsides are covered with earth as far as the stalks are naked of leaves. When it is planted, the stalks are laid singly along the furrow, and capped as far as the leaves extend beyond the joint. The stalks are about three feet long, of which 70 will plant a row across an acre, and 70 drills to the acre is 4900 stalks to the acre. When seed is scarce, and you wish to raise seed only, it is planted further apart, (five or six feet.) Sometimes they cut the stalks in two between each joint, and plant the eyes or joints twelve or eighteen inches apart. One acre will plant five or more.

The cane is a hardier plant than corn or cotton, and is not injured by spring frosts, as it does not begin to joint till May; as soon as it gets up high enough, it must be scraped and weeded like cotton with the hoe. It is not thinned. It soon gets large enough, when it shades the ground and defies the weeds, and becomes the most luxuriant crop before fall that I ever beheld. The rows, three feet apart, become so thick as to be difficult to get through. In June it is laid by, or ceased working, as corn, and you are at leisure during the summer heat, till October. If you could get seed to plant one or more acres this winter from the Mississippi, I would advise you to do so without fail; you will only regret it if you do not. Suppose you plant one acre the ensuing season; next you will plant five, and the year after twenty five, the work of six hands; but if you have twelve hands, which is nearer your force, I would advise you to get seed to plant two acres this season, and in 1830 you will have fifty acres of cane, and can in that year begin your works, and make sugar—100 or 150 hogsheads worth 7 cents per lb.—$7000 to $10,000; and this would be the easiest work you ever did. You can go on with cotton or other business till you raise a stock of cane, with little hindrance on that account. I will now mention something of the works and process of manufacturing, and conclude this long letter.

It is easy to cultivate more cane in Attakapas, than they can manufacture. When you have as much cane as your force can save, it is time to begin the works. A mill to grind, consisting of three cast iron cylinders, fifteen inches diameter, and three feet long, the iron one inch thick; these are fitted on timber, and set one end in a trough touching each other: The middle roller extends high enough to fasten to a shaft like a cotton screw, and turns the other two rollers with cogs. Two or more mules will turn it, and it is fed with six or eight stalks at once, which are pressed flat, joints and all, and the juice runs in a constant stream to a reservoir convenient to the kettles. Four kettles are generally used, of a size to suit the business, as it is found that the same furnace will heat four as well as one. The kettles are of cast iron, shaped like a bowl or basin, generally five or six feet across the top.

The set is one much less than the other; they are placed over a brick furnace, the largest first, into which the juice is put to skim; the least, or last, called the grand or grainer. They are twice filled and emptied into the grand.

The first, or largest, is called the battery, or heater; here they put about half a pint of slacked lime, each time it is filled up with juice. This is all the process of graining or *liming it;* when they perceive the syrup in the ungrainer is boiled enough, by raising it on the bucket, two persons dip it hastily out with long handled buckets, and immediately fill it by emptying the other kettles, to keep it from burning. Each kettle from the first is placed a little higher than the other, to skim off the froth or sap, into the first with a long wooden sword, and wipe it with a brush. The whiteness of the sugar depends on skimming and keeping it from burning as much as the grain or liming. When the syrup is dipped out of the grainer, it is conveyed into an adjoining room into vats or troughs, where it cools and becomes hard. It is then spaded up and put into hogsheads, setting one end over a vat, into which the molasses drains out of the sugar; some stalks of cane are put into the hogshead, to lead the molasses. They have greatly improved lately in Attakapas in graining sugar; they have the best specimens this season ever made. I will mention that it is the practice to employ persons acquainted with the business, to superintend the erection of the work, and to manage it the first season. There are plenty of persons anxious for employment that way, on moderate terms.

Some send a hand to attend to the kettles, for a season, to learn. All depends upon getting one acquainted with graining and managing.

You will excuse the hasty and crude manner in which this important matter is stated.

When I see you and have leisure, I shall take a pleasure to explain more intelligibly. If all those who could make sugar, would commence and quit the cotton business, those who could not make sugar would get a better price for their cotton. Every thing—health, interest, patriotism, and sound policy are in favour of it. There is no danger of glutting the sugar market, for our country has too little cane land, to supply the growing demand, which increases faster than the population. The tariff of three cents per pound is ample protection.

(Signed,) JAMES McCOY

THE SUGAR-CANE.

Now, that it has been proved, beyond doubt, by *actual experiment*, that the sugar-cane can be successfully cultivated on Red river lands; the tide of public opinion is evidently setting that way. Some of our most wealthy and enterprizing planters are commencing on a more extensive scale than heretofore This augurs well for the prosperity of the country. We hope, ere long, to see many others following the example, and we heartily wish them that success which we believe will crown their exertions. [*Alex.* (*Lou*) *Gaz*

TOBACCO.

We have before us a valuable exhibit concerning Maryland and Ohio tobacco, shewing the exports of 1827, crop of 1826—sales in Europe in 1827, and the whole stock on hand, 1st of January, 1828. The following brief abstract takes in all that can be generally interesting:

	To Amsterdam.	Rotterdam.	Bremen
From Baltimore, hhds.	4602	6967	8157
District of Columbia, hhds.	6096	1527	8655

Also—from Baltimore, 508 hhds. to Hamburg; 138 to Stockholm. 259 to London; and 120 to Bordeaux: And from the District of Columbia, 1868 to Cowes and a market; 854 to Havre. Total from Baltimore, 20,751 hhds.—from the District of Columbia, 14,000—together, 34,751, exclusive of 870 from Baltimore, and 150 from the District, sent to other ports, and thence forwarded to Europe.

Whole export in 1827, . .	*hhds* 35771
There remained on hand, on the 1st of January, 1828—	
In the warehouses at Baltimore, .	*hhds.* 6761
on the Potomac, .	2300
Patuxent, &c. . .	700
	9761
Export as above, ...	35771
	45532
There was on hand, 1st of Jan. 1827,	14011

Whole crop of Maryland and Ohio tobacco of 1826, 31,521 hhds.—to wit:—24,021 Maryland, and 7500 Ohio.

The stock on hand is given as follows—

1st Jan. 1828, at	Baltimore, &c. . .	*hhds.* 9761
Do.	Amsterdam, . . .	7966
Do.	Rotterdam, . . .	5647
Do.	Bremen, and on the way,	5408
Do.	London, . . .	600
Do.	Hamburg, . . .	400
Do.	All other places, . .	900
Add estimated crops of 1827, . .		38000
Whole amount on hand, . . .		68682

The whole quantity sold in Europe, in 1827, was as follows:

In Amsterdam, ...	*hhds* 10507
Rotterdam, ...	8426
Bremen, ...	9700
All other, ...	2500
	hhds. 31133

Exports from the District of Columbia

The following statement of the export of the single article of *Tobacco*, from the District of Columbia, during the last year, will be interesting to many of our readers The tobacco was all, or nearly all, of the growth of Maryland and Ohio. If this District is now an exporting point for Ohio, with the immense intervening land carriage, what would it not be for the whole western country, with the facility of a canal from the Ohio to the Potomac?

Cleared in 1827.	*Vessels' names.*	*Amsterdam*	*Rotterdam*	*Bremen.*	*Cowes and a market*	*Havre.*
Febr'y 26	Charles,	—	—	—	—	296
March 18	Helvetius,	493				
" 10	Shenandoah,	—	—	150		
" 30	Virginia,	818				
April 5	Diligence,	—	—	—	486	
" 18	Superb,	—	688			
May 1	Rousseau,	—	—	434		
June 2	Gov. Brooks,	—	—	—	428	
" 18	Laura,	—	—	290		
" 21	Syren,	—	—	—	—	300
" 30	Pioneer,	542				
July 3	Emblem,	—	—	--	260	
" 23	Shenandoah,	—	—	811		
" 25	Beta,	524				
August 17	Eagle,	659				
" 17	Washington,	—	—	—	244	
" 25	Columbia,	649				
" 31	Envoy,	—	—	427		
Sept. 5	Wm. Baker,	305				
" 6	Kremlin,	—	431			
" 19	Florida,	376				
" 29	Eagle,	—	—	485		
October 5	Gold Hunter,	—	—	--	450	
" 5	Robt. Patton,	—	—	—	—	258
" 9	Volant,	—	—	350		
" 9	Virginia,	793				
" 5	Massasoit,	450				
" 15	William,	—	—	450		
" 17	St Peter,	—	408			
" 17	Diligence,	487				
" 29	Shenandoah,	—	—	208		
		6096	152	655	1868	854

RECAPITULATION.

To Amsterdam, ...	*hhds.* 6096
Rotterdam, ...	1527
Bremen, ...	8655
Cowes and a market, .	1868
Havre, ...	854
Europe indirect, . .	150
	hhds. 14.150

(From the Georgia Journal.)

AGRICULTURAL DISTRESS.

Eatonton, Tuesday Evening, Feb. 5, 1828.

Pursuant to previous notice, by A Citizen Farmer, a large and respectable number of citizens convened at the court house, for the purpose of considering the embarrassments which we, as a community labour under, and of devising a mode of relief, calculated to alleviate the pressure of the times—

On motion, *William Flournoy*, Esq was called to the chair, and *Mark A Cooper* requested to act as secretary, who took their seats accordingly.

After an interchange of ideas, it was moved, that the chairman appoint a committee of five, for the purpose of drafting such resolutions as they may think adapted to the condition of our country, and Messrs. *William Turner*, *Josiah Flournoy*, *Irby Hudson*, *Joel Branham* and *Thomas Hoxey*, were appointed as a committee.

The meeting adjourned, to meet on this day two weeks.

Tuesday, 19th February, 1828.

The citizens from the various parts of the county convened at the court house. William Flournoy, Esq. being absent, Dr *John Kennon* was called to the chair, when Mr. *Turner*, chairman of the committee appointed for the purpose of drafting such resolutions as might be thought adapted to the condition of our country, offered the following report.

On motion of Josiah Flournoy, Esq the report and resolution were adopted.

On motion, *Resolved*, That the editors of the Journal and Recorder be requested to publish the report and resolution offered by the committee and adopted by the meeting

JOHN KENNON, *Chairman.*

Mark A Cooper, *Secretary.*

In relation to the following report, it may be proper to remark, that, being composed from the drafts of several persons, rather hastily thrown together, it is rather more prolix than it otherwise would have been. From the same cause, there may not be quite as much uniformity of language, on some minor topics, even of sentiment or matter, as might otherwise have appeared. Yet it is hoped that, upon the whole, the document will be productive of some good.

REPORT.

The committee appointed to enquire into the causes of the existing embarrassments in the community, and to suggest the best method of relief, report,

That they have directed their anxious attention to the discharge of the duty assigned them; and now submit the following considerations

The embarrassments complained of, are mainly attributable to the following causes:—the reduced prices of produce; the exhaustion of our lands; bad crop years; bad management; extravagance; and purchasing on credit

It is needless to dwell on a matter so well understood as the effect produced by an unexpected and considerable reduction in the prices of our staple commodities. Nor is it necessary to descant largely upon what is obvious to the most superficial observer, that our fields are deprived of much of their original fertility. The unfavourable seasons are painfully remembered, even by our most judicious farmers. And, although the imputation of bad management may be unpleasant, yet it is believed to be merited, even by some who have had the reputation of being good managers. This bad management has consisted either in having no system, or having a wrong system. Many have employed others to attend to their business, who ought not to have employed any one. Others, who were obliged to employ overseers and other agents, have not bestowed as much personal attention on their own affairs, as they might and ought to have done. Many have planted too much cotton, and too little corn. The consequence has been, that they have incurred the disgrace as well as the expense, of buying, instead of raising, horses, and hogs, and even corn. Another fruitful source of embarrassment, is extravagance; our expenditures have been entirely disproportioned to our income. We have bought clothes for ourselves and families, instead of making them. We have bought fine horses, and carriages, and saddles, when cheaper would have done. We have maintained our children in idleness and style, when we ought to have reared them in plainness and industry.

But it is easy to perceive that the causes enumerated, however powerful in themselves, could never have produced the existing state of things, if it had not been for the existence, or, at least, the abuse of credit. This is indeed the Pandora's box, from which most of the evils complained of have emanated.

Connected with the system or with the abuse of credit, is another evil of considerable magnitude; that of securityship. Many persons who would be able otherwise to bear up, notwithstanding the pressure of the times, are ruined by the laudable, yet unavailing attempt to sustain their friends by suretyship and endorsements.

The committee might easily add to this catalogue other causes for the embarrassments of the present time; but it is useless. Some of them are so connected with the formation of our community, and others, with our moral constitutions, as to preclude even the hope of immediate remedy. The committee will, therefore, proceed to suggest such remedies for the present distress, as they believe to be clearly practicable. And here they must indulge their regrets, that the fallen fortunes of many cannot be restored by any course which can be suggested. To such it only remains, to pay their debts as far as their effects will extend; ascertain the true ground on which they stand; and, no longer deceiving others or themselves, "begin anew their journey and their lives." Pursuing this course, it would still be practicable for a considerable number of them to acquire a competency, or even a fortune, for their families, while there is little or no hope from a contrary course.

Presupposing the necessary industry, without which it is impossible to succeed, the remedies which would be more immediately beneficial to the community at large, are:—To dismiss extravagance; to make as much and buy as little, as possible; to avoid as much as possible the purchase of articles on credit; to be economical in every respect.

The propriety of these suggestions is so obvious as to require but little elucidation. In the idea of making as much and buying as little as possible, is included, not only the production of commodities for market, but of an ample supply of provisions, clothing, work animals, &c. for domestic use. The advantage of purchasing necessaries with cash, is too apparent to need illustration. To give full effect to these recommendations, it is necessary to keep accounts of receipts and expenditures, so as to be able at any time to know your standing; (an ignorance of which often causes a man to incur ruinous expenditures or engagements;) and to be systematic in all things, having a time and place for every thing and every operation; and every thing in its time and place.

It is recommended to every man who has the charge of a family, or estate, to ascertain the full amount of all the demands against him accurately, and set this sum down; and then estimate as correctly, all the means he now has in hand, to meet these demands.

If he finds that his means are competent, to the ends desired, he has nothing to do but to mind the same things, and to walk by the same rule—setting as good an example as he possibly can, of industry

But if, upon examination of his affairs, he finds he has only in part the means to pay his debts, let him put three years business, as nearly as he can, together; take the average profit of one year, and see if that will meet all the claims upon him, after he has dispensed with all superfluities. If this will answer his purposes fully, let him go in hope that he shall obtain the wished for end.

If otherwise, it is perceived that two or more years of prosperity must attend him before he can be delivered from embarrassment, let him sell that portion of his property which is least profitable and most saleable, until he has reduced his debts to the compass of one years profit.

Without adverting to what may be done by the introduction of new articles of culture on our farms, it may now be emphatically said, that cotton is our only agricultural product for exterior trade. Of cotton, we annually raise about eight thousand bales; which may be estimated to be worth, clear of freight and other expenses incident to its sale, about one hundred and eighty thousand dollars. This sum is our only reliance to pay our current expenses of every kind, and our debts; and which we have no hope can be materially enlarged.

Our annual expenditures we estimate to be:

In store accounts, average, . .	$85 000
Pork brought from other states .	15,000
Horses and mules, . . .	8,000
Pleasure carriages, household furniture, watches, doctors' bills, blacksmith accounts, ...	8,000
Salt, iron, sugar, coffee, cotton bagging, and other articles usualy bought at places where we sell our cotton, and not included in the estimate of store accounts, . .	8,000
Interest on existing foreign debts, computed at legal per cent, and without taking into view the many instances in which more than lawful interest is given, . . .	25,000
Making our annual expenses amount to	$149,000

This calculation, if erroneous, we believe, shows our annual expenses to be less than they actually are; but taking it for correct it leaves an excess in the avails of our yearly labours, after paying annual expenses, of only thirty-one thousand dollars, applicable to the payment of present debts; an amount by far too small to extinguish them, or so to reduce them as to change their present burthensome and destructive character, within any time that we can reasonably hope that the holders of them will forbear to press and compel their payment. But a material fact in relation to this balance should not escape observation; many of our citizens, from better management, accident, or other causes, are in prosperous circumstances; and it is into their hands that a considerable part of the money immediately, or ultimately, goes; and although the whole amount of the balance, if exclusively applied to the relief of those whose circumstances are most needing it, would be together insufficient, yet it is apparent that they get much less than the amount of that balance. And what is the consequence?

Some by ruinous sacrifices, in the shape of additional interest, or the sale, for less than their value, of the demands which they hold upon others, put off, for a little time, the day of final payment.

The property of others, we will not say more *unfortunate*, is taken to satisfy debts, enlarged by costs and expenses. If the property when under the sheriff's hammer, could be sold for its fair value, the result would not be lamentable; but this is not, and cannot be the case; because the amount of property which the debts and embarrassments of the community compel them to throw into market, at a fair price, greatly exceeds the annual proceeds of cotton, deducting annual expenses, and it is to these circumstances, prices of property must and will be graduated, and not as in ordinary cases, to its intrinsic worth. No person, however accurate may be his opinion of the value of a thing sold, and how desirous soever he may be to possess it, can buy without he can pay the money for it; this, but few can do; and all the consequences of a glutted market ensue; but little competition; much to be sold; and but little to buy with. The end must be a sacrifice of the property sold, and not unfrequently, a hopeless insolvency of valuable members of the community; poverty, privation and distress among their families, and often in cases where the moral worth of the sufferer claims our deepest sympathy and commisseration.

It is not among the least evils of the times that their tendency is strong, is irresistible, to make the rich, richer; the poor, poorer. Take an instance where property is sold at a sacrifice. Precisely the difference between the actual sale and value of the thing sold, is the gain of the purchaser, at the expense of the unfortunate owner, and sometimes at the expense of the creditors also; as where an individual whose property, at its worth, would cover his debts, does not sell for its value; there is a deficiency, which his creditors lose, gained most usually by him who already has enough, and lost to him to whom it is necessary for the actual comfort and maintenance of his family, or, in case of creditors, necessary to the payment of their own debts.

It is from the same cause that purchasers of notes advance with such rapid strides to wealth among us. It would be wasting time to attempt to prove that the use of money is not worth as much as is asked and obtained by them for it; and it argues a kind of infatuation among us, which we do not believe has any existence, to suppose that we would voluntarily, and without being under great necessity, moral, or otherwise, give so much above its real value for it. In the pressure and necessities of our circumstances, an individual who wields his capital in that business, has an advantage over the community equal to the difference between the true value of the use of money, and the amount obtained: a difference, we believe, of not less than from 15 to 20 per centum, *at compound interest*, and which, in its progress, is entirely competent to the heaping up of great riches on the one hand, and wither and consume on the other.

Such are some of the deleterious consequences of our pecuniary difficulties. Rapid accumulations of additional wealth by those who commonly have enough; and as rapid a divestment of the little property possessed by others, every way as deserving.

It may be well here to say a word relating to the mischievous character of a large portion of the debts we now owe. They are virtually foreign debts, and so many drains to carry from us entirely much of the money which would otherwise remain in circulation among us. A man owes a debt to his neighbour; that neighbour or some other person, into whose hands the money soon goes, owes one of our merchants, to whom he pays it. The merchant owes for his goods, which he must pay for; and in this way it very often happens, that money has hardly reached us from the sale of our cotton, before it commences its return back. But if we owed no foreign debts, the money we might pay in discharge of such as we did owe, would ordinarily still remain with us, and increase the only fund which can be relied upon to make property sell for its worth; that is, the amount in the hands of our citizens, seeking its investment in property. It is, therefore, the unnecessary and improper amount of our purchases from abroad, directly or indirectly, that makes the "balance of trade" against us; first, draining us of our money, as being most portable; and, if continued, eventually taking from us much of our other property that can be carried away with the most facility.

To trace, in all their ramifications, the various pecuniary and moral evils which grow out of such a state of things, would far transcend the limits within which we wish to confine our remarks. We shall content ourselves with stating, most confidently, that we have an effectual remedy in our hands; that by pursuing a proper course of retrenchment and self denial, the community have it completely in their power to relieve themselves from their pecuniary difficulties.

We would make a single remark as to an expectation entertained by some, (upon which much reliance is placed, which we fear will be found delusive,) in relation to an increase in the price of cotton. The price of this article will, we presume, be always subject to occasional fluctuation; short crops and other circumstances, may sometimes cause an advance. But our opinions, founded upon our best judgments is, that the average price will continue low, and ultimately reach a point less than any to which it has gone for many years. Sales made in the early part of next season may, perhaps, *seem* contradictory to this; if, however, it should so happen, we fear that time will ultimately prove the correctness of the opinion here advanced. We turn, therefore, to what we believe to be our *sole dependence* for relief—the curtailment of our expenses.

Our community has already strained every nerve; has put in requisition all its means, to raise all the cotton it can raise, and cannot hope materially to increase its quantity from its present average amount. We attempt to raise nothing else for foreign trade, and all we have done is insufficient to meet our exigencies. The fault is not in our soil; a great deal worse is tilled to much advantage. Cotton is a far more valuable agricultural product than the climate permits to be raised in many other countries, which are nevertheless prosperous. The fault is in ourselves. Our wasteful and expensive habits, formed in times of unexampled prosperity, are retained. But those times are gone. We have not had the wisdom to change with the times; and, until we do so, our case is hopeless. We now make about one hundred and eighty thousand dollars a year from our cotton. We must, if we would save ourselves, reduce our expenses so, that a sufficiency of that sum shall remain, to be annually applied to the payment of old debts, to extinguish them in a reasonable time. We would earnestly urge to the community, that except this, there is nothing else to depend on. Stern necessity is at work among us, and sooner or later, willing or unwilling, to that we must yield; but how much better would it be, how much misery would it save us, if, in the language of the best of books, it could be said of each individual—"The wise man foreseeth the evil, and hideth himself."

If we would hide ourselves from impending evils, let us contract no new debts, except from the most unavoidable necessity, and apply all we can save, to the discharge of old. Let us make every thing which we need, and which we can make, in our own families.

We must raise all the pork needed in our families, and a surplus for the supply of those whose avocations and situations prevent them from doing so. This can easily be done by next season, and would save us annually fifteen or twenty thousand dollars. We must raise our own horses and mules. The effect of this would not be felt under three or four years; after that time, ten or fifteen thousand dollars could be saved annually in this item.

None doubts our capacity to do all these things, and to do them easily. We should, in doing so, not be able to raise as much cotton as we now do; but the gain by us in the exchange would be great. We do not believe that we should fall short ten thousand dollars in the amount of cotton crops annually, to accomplish every thing recommended; and by rigidly adhering to the course recommended, instead of a nett gain each year of thirty-one thousand dollars, we do not doubt it would be swelled to more than a hundred thousand dollars; and that in a short time we should generally be as prosperous and as happy, as ease in our money affairs could make us.

We forbear enlarging upon the many happy effects, pecuniary, moral and political, which would accompany this steady and unwavering prosecution of our interests. We have endeavoured honestly to point out the evils which burthen us, their cause and the remedy? And much pleasure would it give us if our humble efforts should be productive of any good, however small.

In consideration of the premises, the committee recommend the adoption of the following resolution:

Resolved, That the relief of the community from existing embarrassments, can only be effected by a due consideration of the causes enumerated, and a determined adoption of the remedies suggested in the foregoing report.

(From the American Daily Advertiser.)

MADDER.

Mr. Poulson, *Belmont, March* 27, 1828.

Please to publish the letter I herewith transmit for public benefit. The writer merits and will receive the thanks of the society, for his patriotic endeavour to introduce into our country, a most valuable *dye stuff*. It will be too late in the season to wait for a regular meeting of the society, in order to obtain their directions for the distribution of the roots. I have, therefore, requested the secretary, Mr. William S. Warder, by and with the advice of the vice presidents and curators, to cause the roots to be distributed to and among such applicants as in their judgment, will do justice in their cultivation.

I have long been convinced, that an entire change in the farming of those who live near, or within an extensive circuit around our city, will conduce to their essential and indispensable advantage, and to the prosperity of the city, which will become one of the first manufacturing cities in the United States, when the inland supplies of coal, iron and other native products arrive at full perfection. Dye stuffs will then be most indispensably required.

It therefore behoves our farmers and gardeners, immediately to begin the cultivation of all such articles as will be in extensive demand; none thereof will be more important than the madder. It requires time (three years,) to perfect its qualities; and it delights in deep, light or alluvial soils, either artificially so made, or naturally deep, and somewhat moist. Such are our meadows and vallies, every where to be found.

Although the time required for its full perfection, may seem forbidding, yet every thing must have a spirited and zealous beginning. At the end of the first year, the offsets, from the original root, will furnish ample supplies for extended cultivation, and thus large plantations may be made. Mean time the leaves are eagerly devoured by cattle, where cut and delivered to them twice per day, or according to their forwardness of growth. Leaving the heart-shoots uncut, will conduce to the health and increase of the root. If required, ample directions for its culture will be published. Yours, truly,

RICHARD PETERS,

President Philadelphia Society for Promoting Agriculture.

Providence, March 5, 1828.

To the President of the
Pennsylvania Agricultural Society:

Sir,—You will receive herewith, a hamper of madder-roots of the best quality, raised in Holland. They were purchased by me in Amsterdam, with a view of propagating them in this country, where they will thrive as well as in Europe, from whence our manufacturers derive, at present, their supply of this valuable dye-stuff. The cultivation of madder has not, to my knowledge, been attempted in the United States. Feeling assured, that by a little attention to the culture of this plant, our country may be rendered independent of foreign nations for a supply of it, should it not eventually even prove a profitable staple article of export. I am induced to forward this small parcel to you for an experiment, with the conviction that under the auspices of your society, every attention will be paid to the subject, which its importance seems to demand.

I am, very respectfully,
Your obedient servant,
ZACHARIAH ALLEN.

Rustic Rewards.—The Lincolnshire Agricultural Society has given a prize of ten guineas to one man, for having had *seventeen children*, (ten living,) and been forty years in the service of one master; and another of five guineas, for *twenty-five children*, (ten living,) and a service of forty-one years.

[*Chester* (*Eng.*) *Chronicle.*

HORTICULTURE.

INFLUENCE OF TREES UPON SMALLER PLANTS.

Mr. Skinner, *West-Chester, Penn. April* 2, 1828.

Sir,—It is well known to agricultural observers, that certain trees exert a pernicious influence upon many other plants growing in their immediate vicinity; and especially upon some of our cultivated plants, such as Indian corn, oats, wheat, &c. This fact is very remarkable in Indian corn fields, along the margins of wood-lands. It is probable that all trees are more or less injurious to cultivated plants, which are located within the sphere of their influence; but some kinds are much more so than others. Every farmer may have observed that cultivated crops, situated along the borders of wood-lands, exhibit a more sickly appearance, and to a greater extent in the field, opposite some trees, than others. For instance, this effect is generally more remarkable in the vicinity of chestnut, hickory, and tulip poplar trees, than in the neighbourhood of locust trees, maples, persimmons, &c. Our hedgers assert, also, that the red cedar (*Juniperus virginiana*,) and black walnut, (*Juglans nigra*,) are particularly injurious to the Virginia thorn, when permitted to grow near the latter. It has been supposed that this injury was owing to some pernicious secretion, or exhalation from the trees, by which the atmosphere was contaminated immediately around them, and rendered unfit for the healthy growth of more delicate plants. This notion derived some plausibility from, and was probably strengthened by, the fabulous stories so long current, respecting the celebrated *Bohun Upas*, which was said to destroy all vegetation for a great distance around it, by means of a deleterious emanation from that marvellous tree. It was obvious that it was not the mere *shade* of the trees, along our corn fields, which produced the effect in question, because, although shade alone, doubtless has some agency in checking a vigorous and perfect vegetation, the difference is too striking in the vicinity of certain trees, to be ascribed wholly to that circumstance.

An ingenious farmer of this county suggested to me, upwards of twenty years ago, that this unfriendly influence of trees upon crops, was neither owing to shade, nor to any exhalation from the trees; but that the *roots* of the trees robbed the smaller plants of their due share of nutriment. His idea was, that there were certain constituent ingredients in soils which were more particularly adapted to the nourishment of certain plants—that when this nourishment was exhausted, the plants which depended on it necessarily declined, and others, more congenial to the altered, or new condition of the soil, succeeded. This opinion was in some degree corroborated by the fact, of the character of the soil every where determining the character of the thrifty vegetation upon it; and, also, from the success attending a *rotation* of crops—which seemed to be best explained upon some such principle: for it is well ascertained that a continued succession of the same crops does not succeed so well as the alternate husbandry. In pursuance of this theory, my friend argued that certain trees drew from the soil, in an eminent degree, the *same* nourishing ingredients that some of our cultivated crops did; and, being more vigorous, or endowed with greater power to that effect, of course, robbed the latter of their due share of pabulum, and left them weak and dwindling. The truth of his doctrine, he alleged, was confirmed by the nature of the remedy, which had been found most effectual in correcting the evil,—which was, to prevent the roots of the trees from having access to the soil in which the smaller plants grew.

It had been ascertained that a narrow *ditch*, dug along the borders of wood-lands, or around trees, so as to cut off all communication, by means of the roots, between them and the cultivated soil, would pretty effectually correct the injurious influence of the trees, and allow smaller plants to thrive, and flourish, up to the very margin of the ditch. This seemed clearly to show that the evil was produced chiefly through the medium of the *roots;* and not from mere shade, nor from any effluvium, or secreted matter, emanating from the trees themselves.

Without stopping to inquire into the truth of the above, or of any other *theory*, there is no doubt of the *fact*, that a ditch along the edge of wood lands, or between forest trees and cultivated plants, is a very effectual mode of correcting the evil alluded to, and of promoting a thrifty vegetation quite near to such wood lands. The practice has been pursued by several of the most careful and judicious farmers in this vicinity, for a number of years past; and, from its uniform effects, unquestionably deserves to be more generally adopted. I shall close these hasty remarks by giving, in his own words, the observations of one of my neighbours, whose success in agriculture forms the best eulogy of his skill. His experience on this subject is directly to the purpose, and seems to be conclusive.

"Some years ago, I purchased a small farm, surrounded on three sides with the wood-land of my neighbours. In a conversation with an elderly and respectable friend of the vicinage, he observed to me, that I had paid for more land than I would have the benefit of. On my inquiring the reason, he said that my neighbours would receive the benefit from my tilling and manuring, for a considerable distance in my fields, by the roots of the trees penetrating my land. I then determined to try an experiment, that had been suggested some time before, of cutting a ditch near the line to a depth sufficient to cut off all, or most of the horizontal roots, which extended into my fields. I commenced where a hedge of the Virginia thorn had been set near the woods, and was then in a languishing condition. I cut some rods in length, between the hedge and woods, about fifteen inches in depth, which appeared to be sufficient to take off all the roots. Other business interfered for about three weeks: then another portion was cut—and business again prevented its being finished. When I proceeded to cut the third and last part, I observed the thorns, and grass, along the first cutting, had improved in colour, and growth, so as to be equal to those at any distance from the woods. The second part was something like half-way (in improvement,) between the first and third portions. I therefore concluded there could be no doubt, that it was the *roots,* and not the shade of the woods, that did the principal injury to the adjoining cleared land. I have since extended this mode of ditching considerably, and with equal success; having had the satisfaction of seeing all kinds of grain and grass growing up to the edge of the ditch, equal to that of any other part of the field—with the exception of grain not *ripening* quite so soon where it was shaded. The success I have had in making the above experiment, induces me to recommend it with confidence: believing that many individuals might be profitably employed in such a work, where they would otherwise remain idle."

Should you deem the foregoing observations worthy of the space they will occupy in your valuable journal, they are entirely at your service.

Very respectfully,
Your most obed't, W. D.

CHILI PEAS, SIOUX CORN, &c.

Thorndale, near Taneytown,
J. S. Skinner, Esq. 3d *April*, 1828.

Sir,—You have often complained of your friends not reporting the success of different kinds of seeds, &c., that you were so kind as to distribute amongst them. I am one of those against which the charge is fairly laid. In fact, I got several things from you which I do not recollect; however, some I do, viz: peas from Albany, said to resist the bugs, Chili peas, Sioux corn, said to be very prolific, cuttings of Cherokee rose, Madeira grape seed, and large wheat, I think from some place near the Baltic. The peas had no bugs when I got them, but their produce was not so, and if they were bug-proof at Albany, it must be owing to a difference in the climate; however, I consider them an excellent thing; they grow large, and are very productive. The Chili peas, when planted on poor ground, produced poorly, and when on good, they always lodged, and mostly rotted before they ripened—after trying them for several years, I abandoned them. The Sioux corn was early, but the ears were so trifling, I considered it unprofitable, and gave it up. The Cherokee rose cuttings were dried, and injured in the carriage, and did not grow. I should like to have some more at a proper season. The Madeira grape seed did not produce one plant. I sowed it in the spring; perhaps that was not the right season? The large wheat, (to my shame be it told,) lay over for three or four years; however, I planted it late last fall, and I find a small portion of it is growing. I am engaged in planting a vineyard, and am anxious to have it enclosed with a hedge, that neither man or beast can break through or climb over. I have sown a quantity of honey locust seed, believing that it will furnish me with plants, that will answer my purpose. I intend planting a double row, and to thicken them by clipping, like a thorn hedge; but having no experience of the article, I will be particularly obliged to any gentleman who has, to give me information on the subject.

Yours, very respectfully,
C. BIRNIE.

P. S. I am sorry I cannot persuade your trustees to take cognizance of the hedging system: I hope I shall soon be able to convince them of the practicability of it, on a pretty large scale.

(From Prince on Horticulture.)

OLIVE, POMEGRANATE, DATE, &c.

Olive, or Olea europea.—This tree, whose cultivation seems now advancing in Florida, may be considered as calculated to impart immense riches to that portion of our country which may be found congenial to its culture. But, perhaps it is not generally known, that in France and Italy, they enumerate no less than seventeen different varieties of the cultivated olive, all of which are esteemed for possessing, to a greater or less degree, the different properties for which the olive is valued. Some varieties are said to produce oil in greater quantity, others that of a more delicate quality, while others are deemed more suitable for preserves, &c. The whole number of these varieties, has been introduced to this country by the author, and are now under culture at his establishment, and will be found enumerated in his Green-house. In England, the olive produces fruit plentifully in a common Green-house.

The Olive--Emblem of Peace.—In old Rome, every new married couple were crowned with garlands of the olive, to represent that quiet and peace which attend, or rather which ought to attend, the hymeneal union. The victor at the Olympic games was honoured with an olive crown. Noah's dove is represented with an olive branch in its beak, as bringing the promise of peace to a desolated world. The bird of the American banner has its branch in one talon, and arrows in the other, as if offering either peace or war to the nations of the earth. The olive was consecrated to Pallas, and was the favourite tree of the virgin goddess. When the god of the trident quarrelled with her, for the honour of giving name to the city of Athens, their peers resolved, that the one who should give the most useful present to mankind, should name the city. Neptune dashed his trident on the sea-shore, and instantly the war-horse arose with flashing eyes and streaming mane; Minerva touched the earth with her spear, and the gentle olive raised its mild head above the earth—the goddess was triumphant.

Pomegranate.—This plant has produced fruit in England, against a south wall, and also at Long island, by being protected during winter. It is far from being tender, and may, without doubt, be acclimated to the country south of the Potomac. It does not seem to be generally known, that there are several very superior varieties of this fruit, such as the large Malta, the sweet fruited, the white fruited, &c.; besides which there are a number of varieties that are particularly beautiful as ornamental flowering plants, such as the double crimson, the monstrous double crimson, the double white, the yellow flowering, the dwarf flowering, &c. General Forman, of Maryland, informs me, that the pomegranate flourishes with him without the least protection.

Zizyphus sinensis, or *Chinese Date.*—This tree is extensively cultivated in China, and the fruit is much esteemed. The varieties of this fruit in that country, are said to be almost as numerous as those of the plum in Europe. It has latterly been introduced into cultivation in the gardens of Europe, to which it promises to be a great acquisition. Both this and the two following would suit the climate of the southern states.

Zizyphus vulgaris, or common Jujuba.--This fruit is well known in the south of Europe, and is generally called the European jujuba. Its fruit is excellent for preserves, under which form it is sold in the shops of Paris, London, and other cities of Europe.

Zizyphus lotus, or Lote Tree.—This produces a drupe of very pleasant flavour, and in North Africa is said to be an article of much importance to the natives, a particular tribe of whom anciently derived their name from living upon the lote.

SILK.

[Every fact upon this subject is interesting, and here are some new ones, shewing the spontaneous growth of the worm and its food, and the uncommon size of their cocoons, in Mississippi.]

Mr. Skinner, *Vicksburg, (Mis.) March* 19, 1828.

Sir,—I have taken the liberty to enclose a specimen of the silk of this country, as it is found in the forest. The size of the cocoons truck me as being remarkable, though from what I can learn, not uncommon in this country. When brought to me, it was about the size of a hen's egg, and differed from all others that I have seen, by having a husk on the outside, in all respect similar to that which immediately enclosed the worm. Between the two husks the silk was extremely loose. It was brought to me by a negro, who said it was found upon a black mulberry. The cocoons are found sometimes upon the linn and sometimes upon the cane. Upon the latter, they are generally small, but upon the linn they are mostly larger than upon the mulberry.

This part of the country abounds with the mulberry; mostly black and red, though there are many of the white. Probably four-fifths of the forest mulberry are barren, but from the shape of the leaf, are supposed to be of the black species.

I am anxious to obtain some information upon the culture of silk, as applicable to this country. It would give me pleasure, therefore, to hear from you upon the subject.

Respectfully yours,
W. H. BENTON.

[The essay of Mr. Buchanan will have answered the call of our correspondent.]

Silk Manufacture of England.

According to the late statement of Mr. Huskisson, the silk manufacture of England now reaches the enormous amount of fourteen millions sterling per annum, and is consequently, aftec cotton, the greatest staple of the country. Some will think Mr. H. should no more let this be known, than a merchant should his good voyages.

RURAL ECONOMY.

MALT LIQUORS.

[As Farmers are about to come to a general resolution to dispense altogether with the use of ardent spirits, except as medicine in cases of cramp or other emergencies; and as it will be, at first especially, desirable to substitute for whiskey some light refreshing beverage, all good housewives will wish to know how best to make and preserve small beer. The following directions contain some useful hints for *bottling*. Those given in the same book for brewing, appear to be on too large a scale for common family use—we will endeavour to procure information on that point also, adapted to the wants and convenience of families in the country. If any doubt the practicability of doing most comfortably without ardent spirits, let them look at the Quakers! where is there in the known world, a *class* of people so neat, so cleanly, so snug, so healthy, so comfortable, so moral?]

THE PROPER METHOD OF BOTTLING MALT LIQUORS.

As a necessary preparation for executing this business properly, great attention must be paid to your bottles, which must first be well cleaned and dried; for wet bottles will make the liquor turn mouldy or mothery, as it is called; and by wet bottles a great deal of good beer is frequently spoiled. Though the bottles may be clean and dry, yet, if the corks are not new and sound, the liquor will be still liable to be damaged; for, if the air can get into the bottles, the liquor will grow flat, and never rise. Many who have flattered themselves they knew how to be saving, by using old corks on this occasion, have spoiled as much liquor as stood them in four or five pounds, only for want of laying out three or four shillings. If bottles are corked as they should be, it will be difficult to draw the cork without a screw; and to secure the drawing of the cork without breaking, the screw ought to go through the cork, and then the air must necessarily find a passage where the screw has passed. If a cork had once been in a bottle, though it has not been drawn with a screw, yet that cork will turn musty as soon as exposed to the air, and it will communicate its ill flavour to the bottle in which it is next put, and spoil the liquor that way. In the choice of corks, take those that are soft and clear from specks. You may also observe, in the bottling of liquor, that the top and middle of the hogshead are the strongest, and will sooner rise in the bottles than the bottom. When you begin to bottle a vessel of any liquor, be sure not to leave it, till all is completed, otherwise it will have different tastes.

If you find a vessel of liquor begins to grow flat whilst it is in common draught, bottle it, and into every bottle put a piece of loaf sugar of about the size of a walnut, which will make it rise and come to itself: and to forward its ripening, you may set some bottles in hay in a warm place; but straw will not assist its ripening.

If you should have the opportunity of brewing a good stock of small beer in March and October, some of it may be bottled at the end of six months, putting into every bottle a lump of loaf sugar; which, in the summer, will make it a very pleasant and refreshing drink. Or if you happen to brew in summer, and are desirous of brisk small beer, as soon as it is done working, bottle it as before directed.

Where your cellars happen not to be properly calculated for the preservation of your beer, you may use the following expedient: Sink holes in the ground, put into them large oil jars, and fill up the earth close about the sides. One of the jars will hold about two dozen bottles, and will keep the liquor in proper order; but care must be taken that the tops of the jars are kept close covered. In winter time, when the weather is frosty, shut up all the lights or windows of your cellars, and cover them close with horse-dung, which will keep your beer in a very proper and temperate state.

Cost of a Steam-Engine for a Small Mill.

J. S. Skinner, Esq. *York, April* 12, 1828.

Sir,—In reply to the inquiry of your correspondent, F., wishing to know the cost of a steam-engine, suitable for driving one pair of mill-stones of three and a half feet diameter, we state, that our price for one of that power is eight hundred and fifty dollars, delivered and set in motion in Baltimore, or any place not more remote from us.

Respectfully yours, &c.

DAVIS & GARTNER.

LADIES' DEPARTMENT.

(From Blackwood's Magazine.)

ADVICE TO THE YOUNG FEMALE.

BY JAMES HOGG.

She that giveth heart away
For the homage of a day,
To a downy dimpling chin,
Smile that tells the void within,—
Swaggering gait, and stays of steel;
Saucy head, and sounding heel,—
Gives the gift of wo and weeping;
Gives a thing not worth the keeping;
Gives a trifle—gives a toy,
Sweetest viands soonest cloy.

Gains! Good lord! what doth she gain?—
Years of sorrow and of pain;
Cold neglect, and words unkind;
Qualms of body and of mind:
Gains the curse that leaves her never:
Gains the pang that lasts for ever.

And why? Ah! hath not reason shown it?
Though the heart dares hardly own it,
Well it traces love to be
The fruit of the forbidden tree;
Of woman's wo the origin;
The apple of the primal sin;
The test of that angelic creature;
The touchstone of her human nature;
Which proved her, though of heavenly birth,
An erring meteor of the earth,—

And what, by Heaven's sovereign will,
Was trial once, is trial still;
It is the fruit that virgin's eye
Can ne'er approach too cautiously;
It is the fruit that virgin's hand
Must never touch but on command
Of parent, guardian, friends in common—
Approved both by man and woman!
Else wo to her as maid or wife,
For all her days of mortal life;
The curse falls heavy on her crime,
And heavier wears by length of time;
And, as of future joys to reft her,
Upon her race that follows after.

But oh! if prudence and discretion
Balk the forward inclination,—
Cool the bosom, check the eye,
And guide the hand that binds the tie,—
Then, then alone is love a treasure,
A blessing of unbounded measure,
Which every pledge of love endears;
It buds with age, and grows with years,—
As from the earth it points on high,
Till its fair tendrils in the sky
Blossom in joy, and ever will,
And woman is an angel still.

STAYS.

Strong stays, which do the duty of the muscles placed by nature around the spine, causes the muscles to dwindle from inaction, so that afterwards, when the support of the stay fails to become unequal, the back bends or twists. Stays, therefore, can neither help to make strong and well-formed backs originally, nor can they be a remedy after the weakness has appeared. A healthy young woman from the country, whose spine lies deep between the firm cushions of the muscles which support it, if braced up in tight stays, according to town fashion, will frequently exhibit, at the end of a short time, such a wasting of the flesh, that the points of bone in the spine may be counted in the eye.

(From the New York Morning Courier.)

TO MOTHERS.

It may be useful to know, and will be the means of alleviating much pain, that when the breast and nipples are much inflamed, and cannot be sucked, but with the most intense suffering to the mother, a very simple remedy will relieve the breast from its milky burthen, without the slightest suffering. This is no other than filling a common bottle with hot water, and after standing a few minutes, empty it and apply the mouth of the warm bottle to the diseased nipple, and the milk will flow spontaneously into the bottle, giving at the same time a pleasurable sensation, and a complete relief to the overloaded breast. A Physician.

DEATH.

At Clay-hill, her seat in Amelia county, Virginia, on Saturday evening, the 12th of April, 1828, in the 75th year of her age, Mrs Frances Tabb, relict of the late John Tabb, of Clay-hill, Esq., and daughter of the late Sir John Peyton, of Isleham, in the county of Gloucester, baronet; lineally descended from the Peytons of Isleham, in Cambridgeshire. By the death of his son John, younger brother of Mrs. Tabb, by a second marriage, this ancient Baronetcy became extinct. As he never assumed the title, after her father's death, it was claimed and held by persons in England not entitled to it, under a false allegation, in Debrett's Baronetcy, that Sir Robert Peyton, who emigrated to Virginia during the civil wars, in which he was a severe sufferer, left no heirs male. Beautiful in person; affable, graceful and accomplished in manners; endowed with wealth unexampled in that quarter of the country; and with a strength of character beyond her sex, no woman ever fulfilled the duties of wife, mother, and mistress of a family, with more fidelity and zeal than Mrs. Tabb. Her munificence was princely, rather than that of a private person in our country. Her virtues were strictly domestic. Intent on promoting the welfare of others, utterly regardless of self, she was forever occupied in some household labour, or some work of love—ministering to the sick, whether among her descendants, her guests, her neighbours, or her slaves. Her hospitality was boundless; her benevolence without a parallel; the generosity of her character has never been exceeded; her fortitude and presence of mind never surpassed. This is no vulgar eulogium of a descendant or a legatee. It is the unbiassed and unbought offering of one who was long honoured with her friendship; to whom;

for more than forty years, she was an object of respect, approaching to reverence; who loved her living, and laments her dead.

The following anecdote will serve to shew, that the writer has not been drawing on his imagination for these traits of character.

Between midnight and dawn, Mrs T. was aroused by a tremendous noise in her dining room. Instead of indulging in female terrors, she arose from her bed, took a candle in her hand, and proceeded alone to the room whence the noise came. She found that the whole plaistering of the ceiling had tumbled on the floor. She told the writer of these lines, that she thought it was some thief or thieves, whose object was to break into a large pantry adjoining, where liquors, plate, &c., were kept; "and I was sure," said she, "that as soon as they saw me they would run." Yet there was nothing in the least masculine in her manners or person. No *fine* lady could be more delicate than was this fine woman.

SPORTING OLIO.

(From the Annals of Sporting, for January, 1828.)

Extraordinary Feat

A medical gentleman lately backed his own horse, (standing 15¼ hands high) for 100*l.* to go fifty miles in five hours The wager was decided on Friday, Dec 7, on the Brighton-road. The owner of the horse rode the distance himself; he weighs twelve stones, and, including the saddle and bridle, the animal carried about thirteen stones. The fifty miles were accomplished in four hours and twenty-five minutes, thus winning by thirty five minutes, and the whole distance, with the exception of a mile and a —, was performed in a trot.

Pedestrianism.

Captain Hinks, a gentleman well known in the sporting world, had undertaken to run six miles in thirty-two minutes, for 100 guineas; but forfeited in consequence of ill health. Mr. F. Harcourt was the gentleman who had then bet against the undertaking, and he subsequently backed himself, to run the six miles in less time than the Captain, for 100 guineas The match took place on Monday, November 24, at Hounslow. It was done as follows, upon a one-mile piece of ground Betting, at starting, even, and, in some cases, 5 to 4 on the Captain, but very few takers:

Captain Hinks.

	M.	S.
The first mile, ...	4	12
Second do.	4	40
Third do.	5	00
Fourth do.	5	28
Fifth do.	6	2
Sixth do.	7	18
Total, . . .	32	10

Mr. Harcourt.

	M.	S.
The first mile, ...	4	6
Second do.	4	52
Third do.	5	10
Fourth do.	5	56
Fifth do.	6	30
Sixth do	7	22
Total, . . .	33	56

The pedestrians started at opposite ends. Betting ran thus, after the first two miles, 5 to 4 in favour of the Captain—and, after five miles, 7 to 4, and no takers, on the Captain, who came in quite fresh.

Backward and Forward Match

Barclay, as he calls himself, has been performing the hundred miles in twenty four successive hours, each alternate mile backwards. He started on Monday, Dec. 17, from the Golden Lion, Lanend, to the Cross Keys Inn, Delph, and continued to and fro, until near one o'clock next day, when he completed two miles more than his undertaking, in consequence of a blunder in the accountant.

Fox Hounds.

Col Wyndham's fine pack met at Applesham-furze, on Tuesday, 4th December, when, among about a hundred and twenty horsemen, full *eighty scarlet frocks were exhibited.* The day was damp, but not cheerless—that the inspiriting brilliance of the field prevented; and the subsequent sport, though it did not turn out of the severest quality, was very distant from the unamusing. Soon after meeting, a brace of foxes were found in the furze, one of which was presently chopped; the other broke cover in good style, and, after a run of about five miles, and scouring through Stubb's bottom, was killed in Stoke-furze. This event had scarcely occurred, when a third fox was unkennelled in the gorse patch, which stood for Chenkenbury-ring, with the dogs in full cry, every horse in rapid motion, and, apparently, every rider happy The ring was scudded from down Wiston hosthill into Wiston park, and then merrily on for West Grinstead After a chase, altogether of about twelve miles; however, the haze became so opaque, and the drizzling discharge from the clouds so increased, that the dogs were called off, and the diversion was prematurely put an end to. About Chenkenbury ring, a Mr B. and a Mr. M. had an unpleasant altercation, during which the horse-whip was mentioned, but not exercised by either party.

A Dead Shot.

At the middle of November, a youth, of Skipton, only fourteen years of age, being out alone, raised eight grouse, out of which, at the first shot, he killed four. He pursued the remaining four, and coming up with them, at the second shot he killed three. He subsequently raised another covey, out of which, at the third shot, he killed two—destroying, in three shots, nine birds; and this feat was accomplished with a single barelled gun.

OBITUARY.

Died, on the 25th ult. in Fairfax county, old Juno, for many seasons the favourite leader of the Washington park of fox hounds.

If the deceased was not the best to *find*, she was amongst the best *chasing* hounds that ever was followed; whether at *hits heels*, or *close running*, she had few equals. Her voice was truth itself, and whenever she *gave tongue*, her companions always *hoik'd* with attention. But after being herself *in at the death* of so many, grim death has *run into* her Alas! nor the woods of Arlington, nor Chapman's fields, nor Factory hills, will ever more re-echo to her voice—neither, by one of *her* infallible *hits*, shall we be again reminded of the poet's lines—

> ——————"See where they spread,
> And range around, and dash the glittering dew.
> If some staunch hound with her *authentic* voice,
> Avow the recent trail, the justling tribe
> Attend her call; then with one mutual cry
> The welcome news confirm, and echoing hills,
> Repeat the pleasing tale."

A Member of the Washington Hunt.

April 2, 1828.

MISCELLANEOUS.

Mode of condensing and preserving Vegetable Substances for Ship's Provisions, &c.

The quantity of liquid matter which enters into the constitution of vegetables, is very great—when they are deprived of it, their bulk is very trifling. The preparation of animal food, called *pemmican*, in which six pounds of meat are condensed into the space of one, is mainly effected by abstracting all the fluid from it Vegetables may be treated in the same way: let them undergo the process of boiling over a fierce wood fire, so as to preserve their colour when completely cooked; grind them into a complete pulp by some such means as are used to crush apples for cider; then let them be subjected to the action of the press, (being first put into hair bags, as grapes are in the wine press,) till all the fluid matter is separated from them; the substance thus becomes condensed hard and dry Then let it be rammed hard into glazed jars or tin cases, secured by two pieces of bladder tied tightly over the mouth In this state, place them in a broad pan, and boil them until the air within is absorbed, which is indicated by the bladder coverings becoming concave by the pressure of the atmosphere; and, when placed in stone, as long as the covers remain in this state, the contents are safe; but if, on the contrary, the covers rise into a convex shape, it is certain that fermentation has commenced, and the jars must either be immediately opened, and the contents used, or they must be boiled again. The preparation of the vegetable matter for use, is accomplished by adding a sufficient quantity of milk, water, gravy, lime juice, &c. to it, and warming it up. By this means, a ship's crew may always have fresh vegetables, even on the longest voyages. It is worthy of remark, that the most irritable stomach is not offended by vegetables treated in this way. [*Journal of Science.*

THE FARMER.

Baltimore, Friday, April 18, 1828

☞The embarrassment which pervades the agricultural community in the middle states, we are sorry to see, prevails in a degree not much less severe among the cotton planters of the south, if we may judge by the proceedings (published in a preceding page,) of a public meeting called in Georgia, to deliberate on the causes of uncommon distress and the means of alleviating it. We would suggest that meetings be called for the same purpose in Maryland and Virginia, if we could see to what practical measure of relief they could give rise. At all events, it would seem expedient, that farmers should more frequently meet together to compare notes and form associations, in such manner as to enable them to bring into action the intellectual force of their own corps, for the benefit of their peculiar interests. How that is to be done, or what is to be done, is it not so easy to say There must, however, be a *beginning* to deliberation as well as to action. A man often takes his pen to write on a particular subject, without precisely knowing what views of it are to be taken; but after a little reflection, it evolves itself; thoughts appropriate to it occur as he proceeds, until an essay is stricken out, well calculated to amuse and instruct, or fraught with suggestions of enduring utility to his fellow citizens. Dr Johnson, the great leviathan of literature, commenced one series of profound moral essays, by a chapter, "On the difficulty of choosing a subject"

But, unhappily for the farmers who would propose to hold occasional deliberative meetings, there is no difficulty in finding a topic to dwell upon. *Pecuniary distress*—debts, with their ever accumulating Interest,* the impossibility of longer indulging their family in articles of dress, and in modes of living, which, in times of the strictest economy, were never before esteemed luxurious—above all, and most painful of all, the excessive expense of a good education for their children. These are topics of universal concern, and causes of intense anxiety to almost every planter and farmer in the country. We are not competent to add any thing to the reasoning of the gentlemen whose proceedings we publish; but something in the way of mitigation, at least, may still be hit out by further discussion; to which we respectfully invite our agricultural friends, either at public meetings or in the Farmer, or both. It strikes us that something may accrue from public deliberations and resolves; *in this way.* There is a natural repugnance in foregoing certain expenses in dress, furniture and equipage; in our tables, &c. One is ashamed to retrench in this, and another in that, because his neighbour does not do it; and in this general struggle of pride against necessity, the latter prevails, and all are involved in one common ruin. The rich miser, who smiles at their infatuation, and awaits its calamitous results, is the only one that survives the wreck; he gathers up the fragments of their estates at public auctions, and, fiend-like, rejoices in the desolation that surrounds him. Let them, then, enter into resolutions to set examples to, and to countenance each other in the practice of *every possible retrenchment;* to go back to that system of the strictest economy in the smallest details, which characterized the manners and mode of living of our forefathers: finally, it must come to that, and how much better to divest ourselves at once of all false pride, and voluntarily to impose abstinence and self-denial in every practicable form and particular, than to bow the reluctant neck after a protracted and graceless struggle? We have not room to pursue this unpleasant theme, but we cannot forbear to exhort our friends, that, whatever else may be done, they banish from all their deliberations, the *hateful spirit of party,* and permit it not to aggravate or give false colouring to privations that grow out of the new relations of the world, and the altered condition of other nations. We would promise to add, in our way, what may occur as apposite to the times and the situation of the people, for we hold it to be every man's duty to lend his counsels, our professions of sympathy are not words of course; they come from the heart, but besides the expositions in the proceedings before referred to, we observe by the last Southern Agriculturist, that the subject has been taken up by a gentleman, than whom we know of none more able to analyze it thoroughly, so we cheerfully take in sail—

"Larger barks may venture more,
But little boats should keep near shore."

As poor Richard says.

In a circular from Whitemarsh B. Seabrook, President of the United Agricultural Societies of South Carolina, to the members of that Society, which we shall publish at length in our next, he asks, amongst others, the following question:

What do you consider to be the prominent evils under which our agriculture labours, and what their remedies?

Nothing but the want of room to give it entire, and unwillingness to divide it, has prevented us from publishing Mr. Seabrook's able address, on a late occasion—sent to us by a friend.

☞From a correspondent in Talbot county, we learn, that the wheat crop looks remarkably well; promising the most abundant harvest that has been reaped for many years.

Latest Foreign Intelligence.

(Received at New York by the packet ship Brighton.)

Paris, February 25.

We have this instant received fresh letters from Constantinople, dated the 26th of January. They are extremely interesting.

"Circumstances appear at length to indicate the approach of a crisis which has been long feared. The last hatti scheriff, which destroys all hopes of reconciliation with Russia, as well with respect to its internal affairs, and the treaty of Ackerman, as with regard to the proposals of pacification, has been read in all the mosques; and the immediate closing of the Bosphorus, against the ships of all Christian nations, affords a proof that the late negociations have so incensed the Porte, that it no longer cares for the maintenance of the existing treaties with the other States. In the midst of all these alarms, the military preparations and measures of precautions are prosecuted with great diligence. A palace for the Sultan is building on the Asiatic coast, with ditches and fortifications, to which he may retreat in case Constantinople may be besieged.

"The march of troops to Adrianople continues, as well as the sending of the Sultan's equipages, who, according to a report which is generally believed, will very shortly go to that city."

[*Gazette de France.*

COMMERCIAL RECORD.

(From the New York Merchants' Telegraph.)

Liverpool, March 1*st*, 1821.

We continue to experience a regular and rather extensive demand for cotton from the trade, but no improvement in price can be noticed in any description; on the contrary, new uplands and Orleans are lower, and Brazils have declined 1-8th per lb. Sea Islands have been in increased demand, but only at previous prices. That confidence which the extraordinary consumption is calculated to inspire, seems for the present to be counteracted by the weight of our stock, and the increased import the last two months; which, contrasted with the two first months of last year, shew an increase of rising 30,000 bags, and hence it is that holders in general are willing sellers. The sales of the week amount to 12,470 bags, viz:—490 Sea Island 11 a 16½; 150 stained do. 6½ a 9½; 5610 Uplands 5580, 5 a 6⅜ 30 a 6¼; 1900 Orleans 1890, 5¼ a 7¾ 10 a 8¼; 1170 Alabamas 5 1-8 a 6¼; 730 Pernambuco 7¾ a 7⅞; 520 Bahia 7 3-8 a 7⅞; 1020 Maranhams 7½ a 7⅞; 170 Demararas 7¼ a 8 3-8; 140 Egyptian 7¼ a 8¾; 30 Bourbon 8¾; 80 Carthagena 4¾; 10 Bahamas 6½; 950 Surats and Bengals 4 a 4¾.

The imports this week amount to 9684 bags.

There has been a moderate demand for cotton to-day, the sales are estimated at 1500 bags without any alteration in price.

In ashes a fair business has been done, but in some instances a trifling decline has been submitted to—the sales are 50 bbls. New York Pots at 32s. and 60 bbls. old pearls at 31s.; 326 bbls. Montreal pots at 30s. 6d.; 31s. for new, and 29s. 9s. a 30s. for the import of 1826; 320 bbls. pearls at 31s. a 31s. 6d. for new, and 30s. a 30s. 6d. for old.

Tar—300 bbls. brought 12s. 9d.

Turpentine—1060 bbls. from Wilmington were offered to-day by auction, for which 12s. 9d. was bid; 100 bbls. have since been sold at 13s. 3d. per cwt.

Rice—A mixed parcel of 90 casks has been sold at 15s. 6d. for export.

Flaxseed—260 hhds. New York have been sold at 47s.—50 at 47s. 6d. and 50 at 52s.

Hides—200 New York sold at 1 3-8d., 500 Boston at 5 1-8d.

In other articles we have no alteration to notice.

SINCLAIR & MOORE,

Have received from near Darby Creek, twenty whole and eight half boxes of SCYTHE STONES, which they offer for sale.

In Store—Early and late POTATOES, suitable for seed, at low prices: amongst them are the Mercer, so justly admired for their mealy whiteness, early maturity and productiveness, equally suited for early or late crops; Millet, Lucerne, Mangel Wurzel, Ruta Baga, and other FIELD, GARDEN and BIRD SEEDS; a general assortment.

In their hot-bed, for proving Garden Seeds, they have raised several thousand early and large York Cabbage and Tomato Plants, at 50 cents per hundred.

Also, CULTIVATORS, with steel tines, made to suit the culture of corn, tobacco, cotton and vegetables—performing the work two-thirds faster than the plough, in mellow grounds. PLOUGHS assorted, as usual, and GEARING complete for the same.

And are now manufacturing and providing HARVEST TOOLS, such as Grain Cradles, Grass and Grain Scythes, with and without hangings; Hand and Horse Rakes; Spring Steel Forks; Wheat Fans, which will clean fast, and smaller ones, suitable for small farms, or for shipping abroad to clean coffee, price $15; both which we will warrant to perform the work well.

They weave and constantly keep a supply of all such kinds of WIRE as are suitable for screens, safes, cellar windows, riddles, sieves, &c.

COTTON GINS, suited to hand or water-power, from twelve to sixty saws, at moderate prices.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.—Scrubs, $3.00 *a* 6.00—ordinary, 2.00 *a* 3.00—red, 3.50 *a* 4.50—fine red, 4.50 *a* 5.50—wrapping, 5.00 *a* 9.00—Ohio ordinary, 3.50 *a* 4.50—good red spangled, 5.00 *a* 6.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 15.00—Virginia, 2.50 *a* 3.00—Rapahannock 2.75 *a* 3.00 Kentucky, 3.00 *a* 5.00.

Flour—white wheat family, $6.00 *a* 6 50—superfine Howard-street, 5.00; city mills, 4.62½; Susquehanna, 4.50—Corn Meal, bbl. 2.50—Grain, best red wheat .90 *a* .95—best white wheat, 1.00 *a* 1.05—ordiny. to good. .80 *a* .90—Corn, .40 *a* .41, in demand—Rye, .42 *a* .44—Oats, 21 *a* .23—Beans, .80 *a* 1.00—Peas, .55 *a* .60—Clover seed, 4.00 *a* 4.25—Timothy, 2.50 *a* 3.00—Barley, .80—Flaxseed, .75 *a* .80—Cotton, Virg. .8 *a* .9½—Louisiana, .10 *a* .13—Alabama, .9 *a* .12—Mississippi, .10 *a* .13—N. Carolina, .9 *a* .10½—Georgia, .9 *a* .10½—Whiskey, in hhds. 1st proof, .22—in barrels, .24—Wool, common, unwashed, .15 *a* .16—washed, .18 *a* .20—three quarter, .25 *a* .30—full do. .30 *a* .35—Hemp, Russia, ton, $230—Country, dew-rotted, ton, 138 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 6 00 *a* 7.00; do. trimmed, 7.00 *a* 7 50—Herrings, No. 1, bbl. 2.87½ *a* 3.25; No. 2, 2.75—Mackerel, No. 1, 5.62½, No. 2, 5.37½; No. 3, 4.50—Bacon, hams, Balt. cured, .9; do. Eastern Shore, .12½—hog round, cured, .6 *a* .7—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.25; ground, 1.25 per bbl.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market-sts.

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* A paper which lies before us, published in Queen Anne's county, Md. contains advertisements for sheriff's sales of about twenty estates, and about 5000 acres of land, besides slaves, cattle, horses, &c.

AGRICULTURE.

(From the New England Farmer.)

ON THE CULTIVATION OF HEMP.

Mr. J. B. Russel,—I embrace the first moment of leisure, to give you, in compliance with your request, an account of the method pursued by our farmers, in the cultivation of hemp. It has been raised in my neighborhood for more than twenty years. It is considered as a sure crop; and at the prices which it has borne for a few years past; affords a reasonable remuneration to the cultivator. In the account which I shall give, there will probably be nothing new or instructive to those already acquainted with the process. If you think it will be useful to others, you will make such use of it as you think proper.

Hemp requires a deep and rich soil. Any attempt to raise it upon a light soil, or upon land worn out and exhausted, until it is recruited by manure, and a fertilizing course of. husbandry, will result only in disappointment. Nor can it long be continued upon the same piece of ground, without an annual supply of manure. But upon a good soil, with an annual sprinkling of manure, at the rate of eight or ten loads to the acre, it may be continued for a succession of years, without any material diminution in the value of the crop.

The ground must be prepared for the seed, much in the same manner as for flax. It must be ploughed and harrowed sufficiently to break the clods, and to render the soil fine and mellow. As different soils require different degrees of labor to produce this effect, it must be left to the judgment of the cultivator to determine when his ground is in a proper state to receive the seed. I can safely say, that few farmers err, in ploughing and harrowing too much.

The time for sowing is about the 10th of May. A few days earlier or later will make no difference. It must not be so early as to expose the tender plant to severe frosts, and if sown late in May, it will produce a light crop—the stalks will have a thin coat.

The quantity of seed varies with the strength and condition of the ground. Two bushels is the usual quantity sown upon an acre—and this is generally sufficient. Some have used more, and upon very strong land have gone as high as three bushels. But I believe that few of our farmers have found their account in using a greater quantity than that first named. When it exceeds that quantity, the land must not only be strong, but it must be reduced to a very fine tilth. Otherwise when it comes to grow; there will be a great deal of *under brush;* that is, short, spindling, coatless stalks of no value, and which will only be in the way, at the time of pulling. The seed is sown broad cast, and bushed or harrowed in, like flax.

No further attention to the crop is required until the season of pulling and cutting. Although the latter mode of gathering is attended with less labor, our farmers almost universally adopt the former, as the most profitable. This commences about the 10th of August. The time of pulling is determined by the appearance of the hemp—There are two kinds of hemp in every field, distinguished by the names of the male and the female. The latter produces the seed, the former the blossom and the farina. The male hemp has but few and slender branches. When this has turned white, or a pale yellow, has shed its leaves, and the farina has chiefly fallen off, then it is time to pull. The female hemp has more and stronger branches, and continues fresh and green until the seed is ripe. It is common to leave patches, or narrow strips, where the seed hemp is most abundant, until the seed has ripened, which will be about a month after the time of pulling; in which case, the economical farmer will pull out the male hemp as far as is practicable; for the fibres of the hemp, that stands in the field until the seed is ripe, are always stiff and harsh, and will bring less in the market, than that which has been pulled at the proper season.

The pulling is a heavy job. One-fourth of an acre is considered as a day's work, though expert hands will pull a third of an acre. No precaution is necessary except to guard against breaking the stalks. The laborer gathers a few stalks in his hands and pulls them up, and having repeated this three or four times, he strikes the roots once or twice with his foot, in order to kick off the dirt, then holding the whole loose in his hands, lets the roots drop on the ground for the purpose of making that end of his handful even. And in spreading his hemp on the ground, he is careful to lay the butts straight and true. This will greatly facilitate the labor of binding.

Rain upon the hemp after it is pulled, produces the same effects as upon mown grass. It discolors it and injures its quality. It must therefore be suffered to lie upon the ground no longer than it is necessary for its preservation. As soon as it is sufficiently dried, which, in warm and drying weather, will be after two days sun, it must be bound up in small bundles or sheaves. A little rye straw is the cheapest and best thing for bands. Let the band be put on towards the top of the bundle, and then shoved down to about the middle, otherwise it will be difficult to bind close enough to hold together, through all the subsequent handlings. Set up 15 or 20 bundles together, well braced at the roots to admit a free circulation of air, and to prevent it from blowing over, and let it remain in this situation, until it is cured sufficiently to put into a stack or under cover. This may be done, in good weather, after two or three days. In the construction of the stack, great pains must be taken, lest the rain should find a passage into it. It is safest to put it under cover, either under sheds about the barn, or by erecting one for the purpose.

It may be asked, why not transport it to the place of rotting and immerse it in the water, immediately after it is pulled, or as soon as it is dry, and save the trouble of securing it from the weather? I am not prepared to say that this cannot be done with safety, under vigilant care and attention. It is believed, however, that it would be exposed to greater hazard of loss, than at a later period. At the time of pulling, the weather is hot, and the water warm. Putrefaction proceeds with great rapidity. If the hemp should remain in the water a little too long, or if, after it is drawn from the water there should be a long rain, or a continuance of damp weather to prevent its drying, it would be rotted too much, and the fibre would be materially injured, if not destroyed. But when the hemp is immersed later in the season, after the weather and water have become cool, there is no risk in suffering it to remain in the water a short time longer than is necessary. It is also supposed that when the hemp is rotted in hot weather, there will be a greater proportion of tow—and after it is drawn from the water, the bands must be opened and the hemp spread, in order that it may dry quickly. It is also a busy season with the farmer, and he can attend to it at a later period, with less interruption to other branches of husbandry. These are the reasons which have induced our farmers to postpone the rotting till the latter part of October. As I have never tried any experiments in reference to this part of the process, and indeed have had but little experience in the culture of hemp on my own farm, I will not give an opinion whether their reasons are well founded or not. I have not undertaken to point out the *best method*, in relation to any part of the process, but only to describe the course pursued in my own neighborhood.

It has sometimes been made a question whether running or stagnant water was to be preferred. The latter is more generally used in England.—The former has been universally applied here. A place is selected near the margin of some brook or small streams, which will afford a basin in which the hemp can be deposited, and where, by erecting a dam across the stream, the hemp can be covered with water.

In the first place, the dam is built of a sufficient height to secure the requisite supply of water, leaving a gate way in the natural course of the stream, and the top of the gate a little lower than the height of the dam, to let off the surplus water. After the dam is completed, shut the gate and try the dam, in order to ascertain whether it is water tight, and will stand against the pressure produced by raising the pond. If it proves sufficient, then let off the water and put in the hemp. A space of two or three feet should be left between the hemp and the dam, so that if a leak should be discovered, there may be room to stop it. This precaution may be unnecessary in an old and long tried dam, but should not be omitted in a new one. Put down a layer of hemp, laying the bundles compactly, then a second course on the first, in a transverse direction, and so on successively, until the whole crop is deposited in the bed, or as much as the basin will receive. Weights, consisting of long and heavy timber, or plank, or slabs with stones upon them, must then be laid across the bed to prevent it from floating. Having deposited the hemp and secured it from rising, the gateway may be closed and the water raised upon the hemp. It will be observed that the level of the hemp must be lower than the top of the gateway, so that the whole body may be immersed in water, and continued so, until it is rotted.

The length of time necessary to complete the rotting process depends much on the weather, and the temperature of water. It may be ascertained whether it has lain in the water long enough, by taking out one of the bundles, drying and braking it. If the reed cracks easily, and the rind, or harl readily separates from the wood, it is sufficiently rotted. So also, if while it lies in the water, the roots will twist off easily. Hemp put into the water the last week in October, will generally require about three weeks. When put in later, I have known it lie seven weeks. If put into stagnant water, soon after it is pulled, five or six days is enough.

When the hemp is rotted, open the gateway and drain off the pond. The hemp must then be removed to a piece of grass land; the bundles laid upon the ground singly, and, after two or three days turned over. When partially dried, it is carried and set up, inclining, against a fence, where it remains until it is fit for the brake. It may then be carried to the building or shed where it is to be dressed; or the brake may be carried to the hemp, as is generally the case here, and after it is broken, it is removed to the barn for the finishing process—or if the weather is not too severe, it may be dressed where it is broken.

A cheap vehicle or sled, for the removal of the hemp from the pond, may be made of two pieces of slit work, about nine feet in length, with three cross beams of the same material. The stakes, driven closely through each beam and runner, will serve the double purpose of holding the sled together, and keeping the hemp from falling off.—No tongue will be necessary. It may be drawn with chains. If however the grass ground is at any considerable distance from the pond, wheels may be necessary.

In dressing, two brakes are used. The first, coarser than a common flax brake, the second, as fine as a flax brake at the head, with one additional bar in each jaw. If the hemp is well rotted and faithfully broke, but little remains for the swingling board. A man, accustomed to the business, will brake and dress from fifty to seventy-five pounds a day.

The labor required to prepare a crop of hemp for market, is not inconsiderable. But it will be observed, that but a small portion of the labor comes at a season, when the farmer is most busily occupied in gathering and securing his other crops. The pulling comes on soon after the hay and grain are secured. The rotting does not commence till after Indian harvest, and the winter grain is sown. The dressing is wholly done in cold weather, when the farmer has little occupation besides that of taking care of his stock and providing fuel. Every considerable farmer who has land suitable for hemp, might raise a few acres, without greatly interfering with his ordinary course of husbandry.

The average crop is six or seven hundred to the acre. I have raised nine or ten—but this was an unusual crop. The land was strong, and in *very fine* tilth. The hemp grew to a great height and was very uniform throughout the piece. The price of hemp in market, has varied, of late years, from $10 to $12.50 a hundred. Scarce any crop of field culture can be put upon the land, which will produce so great a result.

It is not uncommon for the farmer to let out his land upon shares. In that case, the usual terms are, that the owner of the land prepares the ground, and furnishes one half the seed. The occupant furnishes the other half of the seed, and performs all the labor, after the seed is harrowed in, and returns to the owner one half of the seed, and one half the hemp, prepared for market. In one instance, I have received, for the use of my land, more than forty-five dollars an acre, clear profit. The moiety of the seed returned to me, was amply sufficient to pay my part of the seed furnished, and the labor of preparing the ground.

The hemp grown in this neighborhood, when *well dressed*, commands the highest price of the best Russian hemp, and is as readily purchased by the manufacturers of cordage. Our farmers sometimes mistake their own interests, by neglecting to hatchel out the tow, through fear of too much diminishing the weight. An experiment was made in 1824, by direction of the Commissioners of the Navy, to try its strength in comparison with the Russian. "Two ropes, each 2¼ inches in circumference, one made of hemp grown in this town, broke with 3209 lbs. The other made of clean St. Petersburg, broke with 3118 lbs." I mention this fact for the purpose of satisfying the doubting, if any such there are, that our soil and climate are as well adapted to the cultivation of this article, as those of Russia, and that no one need be deterred from entering upon its cultivation, under any apprehensions, that his crop, if rightly managed and well prepared, will be of inferior value.

At a time when the supply of the ordinary products of the farm, exceeds the demand, and consequently the price is so low, as almost to discourage agricultural enterprise, it deserves the consideration of farmers in different parts of the country, whether their interests does not require them to turn a part of their land, and to apply a portion of their labor, to the cultivation of hemp. The annual import from Russia, does not probably fall short of half a million of dollars. This amount might, in a short time, be brought to market, from our own soil. In addition to this, we annually import in duck, and other manufactures of hemp, exclusive of cordage, to the amount of more than a million and a half of dollars. These manufactures might be carried on in our own country, as well as those of cotton or woollen goods. The present rate of duty on imported hemp is $45 a ton, which is sufficient to afford adequate protection, to the extent of the demand. If the continuance of this duty should not come within the rule prescribed by our present chief magistrate, which "requires that the great interests of agriculture, commerce, and manufactures should be equally favored" it may perhaps come within his exception to the rule, of giving "peculiar encouragement to any products of either of them, that may be found essential to our national independence."

I am yours, &c.
Samuel Lathrop.

West Springfield, March 16, 1829.

(From the New England Farmer.)

OAT GRASS.

Mr. Editor—Allow me, through the medium of your paper, to submit, for the consideration of my brother farmers, a few remarks on the culture of the Tall Meadow Oat Grass, (*Avena elatior.*) I have not been able to discover its origin. It differs from the Meadow Oat Grass, *Avena pratensis*, mentioned by Sinclair, and other English writers. Of this fact I am satisfied from an inspection of the *Avena pratensis* exhibited in Sinclair's celebrated work upon grasses, (*Hortus Gramineus Woburnensis*, page 312) as well as from the description therein given of the same. The latter grass, is no doubt, a native of England. And some of the English writers describe it as rather coarse, and possessing nutritive qualities in a less degree than some others. The resemblance of the English Meadow Oat, (*Avena pratensis*) to the Tall Meadow Oat, (*Avena elatior*) cultivated in this country, may be considered perhaps as the cause, why the indifferent qualities of the former have been ascribed to the latter by some writers on the subject in this country. From the circumstance of its having been first introduced among the German farmers of Pennsylvania, I am inclined to believe, with Justin Ely, of West Springfield, that the Tall Meadow Oat Grass, cultivated in this country, is of German origin. I am confident it is not contained in the list of grasses described by Sinclair, and doubt if it was known in England when he wrote.

The attempts which have been made in this part of the country to cultivate the Tall Meadow Oat Grass, I suspect have not been upon a scale sufficiently large, nor under circumstances which furnished a fair test of its qualities. As far as I have been able to learn, the experiments in this vicinity have been made upon small patches of rich and highly manured soil, thinly sown, and suffered to stand in the field for some weeks after flowering, for the purpose of ripening the seed. The produce has therefore been what might under such circumstances, have been expected, rather coarse and "strawlike." With similar treatment the result would have been the same, every farmer must be aware, with any of our common grasses.

I have cultivated this grass for seven years past, mostly upon a thin soil, lightly manured, in fields of from one to four acres, and am fully satisfied of its excellent qualities, either as a hay crop or for grazing. I was induced to make the trial from an account of it, given by Col. Taylor, of Virginia, a very distinguished practical as well as scientific farmer. After fifteen years experience, Col. T. states in a communication to the Virginia Agricultural Society—"It is the hardiest grass I have ever seen, and bears drought, and frost, and heat, and cold, better than any I have ever tried. It keeps possession of the land in spite of severe grazing. It furnishes better grazing early in the spring, late in the fall, in drought, and in winter, than any grass known to me." "Alone, cut before the seed ripens, its hay is as nutritive and pleasant to stock of all kinds as any I have ever used."

Dr. Muhlenburg of Pennsylvania, says "This grass is of all others, the earliest, latest, and best for green fodder or hay. It blossoms about the middle of May, (with us the first of June) and rises to the height of from five to seven feet. Horned cattle prefer this hay to all others, but some horses do not like it green. If suffered to grow old before being cut, it will become strawlike."

The character given of this grass by the above writers is fully sustained by the experience I have had, both as it relates to its qualities as hay, or for grazing. From its early flowering it is peculiarly well suited to be sown with red clover. It is fit to be cut just at the time the clover is full grown, commonly about the first of June.

In the spring of 1827, I sowed with barley a field of four acres, and put on 2½ bushels of oat grass seed, (3 would have been better) five pounds of red clover, and two of white clover seed to the acre. The soil was thin and had been exhausted by long cropping. I intended it for pasturing, but in the spring it looked so promising, I concluded to mow it the first season. On the 3d of June, 1828, it was cut, and gave me two tons, to the acre, of the finest and best hay, either for cattle or horses, I have ever had in my barn.

When sown in the spring either alone or with a grain crop, of barley or rye, it should be harrowed and rolled in, and not less than three bushels of seed to the acre. It vegetates freely and does not suffer by a sudden exposure of the ground to the sun, by taking off the crop of grain in the hottest weather. It is peculiarly well adapted for grazing on poor and exhausted lands, as well as upon those of a richer quality. It comes forward in the spring as soon as the frost leaves the ground, at least a fortnight earlier than our common grasses, and through the dryest weather of the summer exhibits a green and inviting appearance. It yields an abundance of seeds. I took the last season from ¾ of an acre (sown in the fall of 1824) of ground, in tolerably good heart, over twenty bushels of well cleaned seed.

Respectfully yours, E. P.

Lexington, April, 1829.

(From the Southern Agriculturist.)

ON THE CULTIVATION OF THE IRISH POTATO.

Brunswick Co. Va. Jan. 17, 1829.

Dear Sir,—I now proceed to redeem the promise I gave you at the Virginia Springs last summer, that I would forward to you a communication on the subject of raising the Irish Potato. It has been delayed longer than I intended, but hope it may reach you in time for experiment in the approaching season. The method recommended enjoys several important advantages; it requires less labour in rearing the crop, while it is as abundant, if not more so, than the result from any other system which has been pursued in this part of the country. The certainty of obtaining a crop is also greater. The land for planting the potatoes should be well prepared by spading, or any other operation in use with you, and manuring. That manure is best which is far advanced in a state of decomposition. The surface should then be rendered fine and level. The land is now prepared for the seed, which should be placed in rows, about fifteen inches wide, with an interval of eight or nine inches in the row, and as light a covering of earth as practicable thrown over them. One other operation, and the labour, both of preparation and cultivation, is complete. Cover the whole patch in straw, about one foot deep. Many other articles of a similar nature might, I presume, answer as well.* Whether a thicker covering would prove useful in your climate, your own experience will suggest. Under this system, as soon as the potatoes attain sufficient size for use, they may be taken up by examining carefully with your hand under the straw; while all which are not fit for use, are left uninjured to grow. When the proper season arrives for taking up the potatoes for use in the fall and winter, raise the straw, and remove all except such as you wish to remain for seed, in which situation they are preserved sound until the period for germination again arrives.

If you think this worthy a place in your work, insert it, otherwise do not. Accept my wishes for the success of the work.

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* Pine trash—G.

Very respectfully, yours, &c.
ALEXANDER BROADNAX.

To J. D. LEGARE, Esq.

(From the New England Farmer.)

DEGENERATION OF POTATOES BY INTERMIXTURE.

MR. EDITOR,—I expressed a strong conviction in a late number of your Journal, that there was not the slightest foundation for the opinion that potatoes degenerated by juxta-position, or being planted even in the same hills. I remarked that I had never seen it suggested in a European work. I would now ask leave to state, that in Loudon's Magazine, No. xi. is the following paragraph in a communication to Loudon. "I observed in Cobbett's *American Gardener* an assertion respecting early potatoes, which appears to me an *extraordinary one*. He says that if you have got the true kind, of early potato and wish to keep it pure. 'You must take care that no other sort grow with or near it, for potatoes of this kind mix the breed more readily than any thing else, though they have no bloom!!' Will you be kind enough to tell me through the medium of your Magazine, whether the statement of Cobbett be *really correct?*"

To this Loudon briefly answers—"*Not correct.*"

We have then Mr. Loudon's testimony (and better authority cannot be found,) and testimony of the querist who thought the operation extraordinary, in corroboration of my opinion. Let me add, my experience applied precisely to *early* potatoes, which have been planted promiscuously for many years without deterioration or change.

I will now, make a remark which I have frequently made to you, Mr. Editor, in conversation, that I know of no guide more unsafe than Cobbett's American Gardener. Not that it is destitute of merit—not that it does not possess some of the best traits of Cobbett's works, but it has many mistakes, and partakes of the defects of Cobbett's writings as well as of their beauties.

A FARMER.

Roxbury, March 31.

PROSPECT OF CROPS.

Fairfax County, Virginia,
April 14, 1829.

MR. SKINNER:

The communication of your valuable and intelligent correspondent Dr. Muse, upon the influence of the winter upon his wheat induces me to say something in relation to mine, and I would suggest to all your subscribers that it would be worth their labor and time to communicate through your valuable paper their particular fate, with some explanatory matter in relation to soil, and the mode of cultivation, "as iron sharpeneth iron, so does the mind of one man sharpen another."

In the past season I seeded one hundred acres of corn in the following manner. I cut the corn off and put it into shocks and ploughed in the wheat, having soaked it twelve hours in strong brine; this was done in one week, the kind was that called blue stem, the weather was very dry and the land not being clean the wheat was buried deep and came up bad—the most of it was low land, but it has resisted the frost in manly and fine manner, let me however say that from the first of November, I watched every rain and draned off every puddle that was made upon it, and le me suggest to my brother farmers that this is no ost or trivial labor, and I hesitate not to say thattbis aided by good ditches and water drains has added 15 per cent to my prospects. I next seeded seventy acres of bean and pea crop, having taken off that of those that could be found, and then with a good plough turned in the vines and young fruit; afte laying some time and receiving a rain or two the land was seeded in early yellow wheat, and harrowed length and cross ways, then followed the hoe and broke every clod fine, this was waivey land, and as I was partial to the kind of wheat, it received all the *top dressing* I could give it during the winter, it now looks pretty well, yet as it is beside that which was ploughed in, it is easy to see that it is lame and deficient in root—the balance of my crop about ninety-five acres is a fallowed pasture well turned with three horses to a plough, then harrowed; seeded and harrowed and cross harrowed, after which the hoes followed and broke every clod to the size of an egg, the wheat in this was of four kinds, first blue stem, then red chaff Baltimore, then the Mexican early wheat, and lastly the early yellow—the first has done pretty well, so has the second—the third is a sunshine wheat of beautiful grain but shrinks from the blast of winter as a dandy would from a whole-hog man of the west; it is my first and last crop of the kind; the early yellow looks well except where the winter was aided by water, there it sunk and can never come to much, yet let me say that it sustained itself to admiration until the last pitiless and sweeping blasts of winter in March.

I think sir that I can say, that in my whole crop I have not lost more than twenty acres, and this is in spots where the land was tenacious of water, no known skill or contrivance could there retain life in the plants, they are gone and I am left without a remedy for the future; as for the general appearances in this part of the country they do not give promise of half a crop; this is the 14th of April, and I have been able to plough but four days this spring, you may therefore conclude that our corn crop will be very short, and our oats nothing.

FAIRFAX.

HORTICULTURE.

(From the Vine-Dresser's Manual.)

THE ART OF MAKING WINE.

(*Continued from page* 27.)

OF THE WINE PRESS.

The Grecians, before putting the fruit into the wine press, used to spread it on a frame and expose it to the sun for ten days; it was then kept five days in an airy, but shady place, to ripen it and make it sweeter, say their writers. The operation is in practice to this day in several isles of the Archipelago, and also in Spain, especially near St. Lucar; in parts of Italy, for instance Calabria, and in some of our north-eastern departments.

The crushing of the grape assists fermentation. It is generally attended to as the vintage arrives from the vineyard. What is mostly used for this purpose are square boxes, open at top and pierced at bottom with holes, into which a workman gets, who is shod for the purpose with large wooden clogs or stout shoes. He treads and stamps as fast as he is able. The expressed juice runs into the vat below; and when all the berries are mashed, he either throws the murk into the vat, or on one side, according as the murk is to be fermented with the most or not; and then recommences his tramping.

In other places they press the grapes in troughs, which is more suitable; or they wait for the vat to be sufficiently full, and then send into it two or three men, naked, who tread the grapes with their feet, and squeeze with their hands those that swim. These methods are dangerous for those who tread, and are also imperfect, as much of the fruit remains entire; the fermentation must be carried to the point of bursting these herries, which delays the general fermentation, and is contrary to the principle that it should proceed uniformly.

To remedy these inconveniences, *Parmentier* recommends the mode in use in the vine grounds of Champagne—to select the bunches that are entirely ripe; to transport them carefully to the press, and arrange them without bruising on the press, and then to lower the screw. But this method is tardy, and when the grape has a hard skin, opposes too great a resistance. De Bournissac and Gay, of Montpelier, (see Bulletin de Pharmacie, tom. iv. p. 411 and 558,) have invented a press that is much too expensive; a cabinet maker of Castres, one *Guerin*, has invented one much simpler, which is thus spoken of in the Agricultural Transactions of Toulouse: "This machine works by two wooden cylinders (at the bottom of a hopper,) turning in opposite directions by means of two toothed wheels. An experience of five years has tested the machine and shown its economy and perfection." It costs from 70 to 84 francs. I may as well also notice one to which I myself gave the finishing hand.—The first idea belongs to *J. J. S. Acher* de Chartres; its merit is its cheap construction, and its affording every advantage required. It is about the height of a man, and consists of a wooden frame, from which is suspended a hopper, into which the grapes are flung, and one side of which is continued down, projecting out, with guards on each side, and forming an open gutter or slide. The hopper is closed at bottom by a cylinder garnished with large, flat nail-heads, and provided with a handle; a man stands and turns it with ease; the cylinder is three feet long, and one foot thick; in front of it there is adjusted a comb of iron nails, which work between the nail-heads on the cylinder and clean away obstructions. There is not a single berry that escapes, and the juice, skins and stones flow down the open slide into a tub, which is moved away as fast as filled.

The operation of crushing must be perfect, and every grape in the vat ought to go through it, to make a complete, finished wine. The above machine is so simple and easy of construction, that any vine-dresser can provide himself with one, and by the equal and simultaneous fermentation of the must, have a chance to rival the wines of price, for which no pains or expense is spared in the pressing.

OF THE VINOUS FERMENTATION.

Every farmer of the least care will have his vats cleaned out with the greatest attention before the beginning of the vintage. Some rub them with very ripe Portugal quinces; others, if the vats are of stone, give them several coats of quick lime to destroy the malic acid in the must. If the vats are of wood, some wash them with warm water; dry them and pour brandy down the sides; others rub them with decoctions of aromatic herbs, with salt and water, with boiling must, &c. All these methods are good, when cleanness is the result; but quick lime has, I fear, some inconveniences; the calcareous salts formed by this application, by mixing with the wine, may communicate a bad taste to it, and properties injurious to health.

The quickest fermentation is the best; to make sure of it, a vat that is begun must be filled on the same day; the grapes also are not to be carried to the vat until towards ten o'clock, or even noon, so that the heat of the sun may warm the must. If it is foreseen that the vat cannot be filled in twelve hours at furthest, the vintage had better be deposited carefully in puncheons, and the pressing be deferred until next day. It is unsafe also to have vats of too great a size; because in cold seasons they are harder to heat, and more difficult to fill, and the wine is apt to lose its bouquet in them. The farmer who can master these objections, does well to prefer the large vat, because the fermentation is always more active in a large body of must than a small one.

The presence of sugar and water are not alone necessary for fermentation; heat also is required up to twelve degrees of Reaumur at least. To this effect several gallons of the must are to be heated in kettles, and are poured into the vat. One precaution must be remembered; the must is to be removed from the fire the instant it has reached the boiling point, or it will acquire a sweetness that will make the wine unfit for keeping. If the vintage has taken place during a very warm spell, or even during a middling temperature, the fruit will contain heat enough, and no external assistance be required to promote the fermentation. If the crop is not as sugary as usual, owing to a cold summer, a half pound of brown sugar must be allowed for every ten barrow-fulls of grapes. The must also may be scented with the young sprouts of peach or almond trees, and some few handfulls of dried elder flowers. As soon as ever the vat is filled, the whole mass of juice must be stirred up briskly, and covered down with a lid or cover, or boards laid over it.

In a few hours the fermentation is in full train; but sometimes it is delayed for several days for want of the contact of the external air. When fermentation begins, the substances become troubled, displaced, and effervescent, as if about to separate. The heat rises to 20° of Reaumur the liquid swells to a greater volume; then much carbonic acid gas is evolved, and the wine is made. That gas once let loose, the stir is appeased, the liquid falls, grows cold, the foreign substances precipitate, and the wine becomes a limpid fluid.

All enlightened practice proves that air is a vehicle necessary and favourable to fermentation; and that if preserved from the contact of the air, the must can be long kept from change or alteration. But the experiments of some chemists prove, that although the must in tight vessels goes very slowly through the process of change, it nevertheless does become wine, and that of a very rich kind. From which arises two doctrines concerning the making of wine: one, that it should *ferment quick*, the other that it should *ferment slow;* the one declaring that atmospheric air aids the process and assists in carrying off the gaseous matters which must disengage themselves from the liquor, to perfect it into wine; the other insisting that wine fermented beyond the contact of the air is richer, with more bouquet and more alcohol, which the carbonic acid gas carries away where the fermentation is open. The difference of these two parties is mostly in words; and the gordian knot is easily unloosed. To make good wine there is one ferment with agitation required, which, to be complete must go on quickly; and needs the contact of the air to evolve it thoroughly. The term of this ferment is the *sinking of the scum* or head. Then comes on the second ferment, which is slow and progressive. This is the time to close the vats so close as only to leave issues for the carbonic acid gas to escape.

Modes of making wine differ according to the quality or species of the grape, the nature of the soil of the vineyard, the temperature the latter enjoys, and even we may say, according to the notions of the vintner. In some districts the wine only remains in the vats from 36 to 40 hours. In the neighbourhood of Lyons it is left from six to eight days at most; in many places the term is usually from twelve to twenty days. In the south-east departments it remains twenty-five, thirty and forty days; at Narbonne it is sometimes left seventy days. If you ask why, when the fermentation is over, and the wine is made, it is thus left upon the lees to clarify in the vat, the answer is, *it is the custom;* if you say that there will be great loss, that the head will grow dry and sour, the answer is still the same.

When the fermentation has gone through the necessary degrees, and the suspended residuum has been expelled to the surface of the fluid, forming the chaplet or head, as it is called; if there is heat enough in the vat to harden the upper part of the head, and procure a certain siccity which makes it like a crust or solid substance, and if some oily or resinous particles float upwards and make the head compact and closely adhering to the sides of the vat, there is no reason why the wine may not be left untouched. So long then as the wine is covered from the air, and there are no openings to favour the evaporation of the alcohol, the thick head serves as well as any lid to protect the fluid beneath; and if the head is so firm as to remain in its place notwithstanding the falling of the wine from the *slow fermentation*, the wine beneath will be better than any of the same crop that has been exposed to immediate racking off. However, no wine can remain without injury thirty, forty or seventy days in the vat, without being a bad wine, and the vat too warm. I say a bad wine, because it must be wanting in the saccharine phlegm that holds in solution, or serves to incorporate, the aqueous part with the oily and resinous ones. When this tract or mucilage is plentiful, it will absorb and keep back those oily and resinous particles which must rise and cling to the scum to preserve the latter from mould, and make it fit to protect the liquor from the air. If the warmth of the vat is great, it attenuates these oily particles, and the head becomes porous or filmy, unfit to shelter the wine, and acetous fermentation begins. On the other hand, when the phlegm and spirit are in an uncommon proportion, they make the insensible perspiration so brisk and tumultuous, that the heat evolved draws from the head a carbonic gas with which the wine becomes charged, and is in consequence harsh, hard and heady, as dangerous for use as it is unpleasant to the palate.

But wine in France is mostly fermented exposed to the air. The custom is rendered respectable by experience, and by the wisest cultivators and farmers who reason on all their customs and all the traditions that guide them. I have, therefore, no great idea of the new method, known by the name of the Elizabeth Gervais' Patent, and which seems to have been borrowed from my late friend *Fabbroni*[*] or *Don Casbois* of Metz, who constructed in 1782, an *hydraulic valve*, of the same characters as the *wine-making apparatus* of Gervais; or from *Goyon de la Plombanie*, who in 1757 described an analogous process; or from the Neapolitan *Porta*, or the German chemist *Becker*, who lived in the beginning of the seventeenth century. The new invention is intended to prevent the escape of the spirituous and balsamic portions; but the more rapid and agitated is the fermentation, the less is the chance for the alcohol and aroma to be carried off, owing to the vehement disengagement of the carbonic gas which keeps them down. The more quiet and slowly this disengagement operates, the more completely this gas saturates itself with the alcohol and fragrance. It is intended also to keep the scum and film from growing sour, or putrescent, which they never do, when the vintner knows his business and takes proper care. It has, moreover, been proved by public experiments, 1st. That the old method is the only one that preserves the peculiar aroma and inherent qualities of the species; 2d. That the Gervais patent does not increase the product by a thousandth part; 3d. That the liquor which rises and is condensed in the retort-cover, is three parts water, and the rest a brandy, fœtid with the odour of tin; 4th. That there is much to be gained by covering the vat closely, with the precaution, however, of leaving the sufficient openings for the carbonic gas to go off readily; 5thly, That tart, weak wines, treated by the patent, do not become rich or even agreeable; they only gain a higher colour.

As for the *vinification*, the vintage in loosely covered vessels, undergoes a thorough transformation into wine and spirit, both the must and the lees; while in the *close or slow fermentation*, the assimilation is irregularly completed in the racking casks, and the lees, on distillation, afford two or three degrees less of alcohol.

The Gervais patent, also, gives to delicate, rosy wines a deeper colour, which, in commerce, may injure their sale, the characters and appearances of such wines being established; but it does not make them purer or more fragrant. Whether the wines prepared by it will keep as well, either, remains to be seen, they are, as yet, too green for an opinion to be given.

We would not have taken such pains to show the errors of this system, save from a rooted antipathy of such attempts to profit by the restrictive conditions of a process, first patented and then falsely cried up. Recommendations, given with mercantile complacence and facility, or extorted by importunity, have been paraded for the purpose of enriching the inventor, which, in an age when science throws open the gates of benefit to all, is a poor effort at monopoly, and falls with expense and disappointment on the laborious and diligent manipulator of the products of the vine. Finally, it may be said that it is profitable in the South to cover the vats partially, because otherwise the wine would be likely to sour; but in the North the vats must be exposed during the violent fermentation, and closed up as soon as it is over. The wine, it is true, is not as rich, but experience proves that this is the only proper mode to prevent its being soured.

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[*] *Dell' arte di fare il vino*, in 8vo. page 169 of the Florence editions of 1785, '89, and 1790, and p. 21 of the French translation of 1801.

INTERNAL IMPROVEMENT.

THE PUBLIC COUNTRY ROADS.

[Few subjects are more worthy of attention, and in many states none is more neglected, than the main public roads. In Maryland, the matter is left to the regulation of the levy courts in the several counties, so that the system, if that may be called system where system there is none, is no where uniform, but every where inadequate. In some counties the roads are almost impassable, in some places even on horseback, undergoing no repair, except perhaps twice a year, generally the *Saturday* before court, when a little loose dirt is dragged into the gutters, filling one hole by making another larger and more dangerous, and the yawning ravine that is closed for the moment, is re-opened and made wider by the first rain that comes, after—the grand jury has been dismissed.[*] As a general rule, these county roads should be made nearly level; the inclination from the centre of the road to the side thereof, should be very slight, but the road itself should be always kept dry by slight drains on each side, that might be quickly made with a large plough and a good yoke of oxen. It is, however, impossible to have safe, comfortable and expeditious travelling, without submitting to the expense of good roads, and employing competent force and men of *some* sense to superintend them—and here is the difficulty. The people are often like individuals, "penny wise and pound foolish." They won't submit to the expense, and the legislator is afraid to incur their displeasure.—Thus they mutually corrupt, and humour, and spoil each other—the bane of wise legislation, that should impose a present burthen for the sake of great permanent future good; we might add, the curse of the country, is this dastardly fear of encountering responsibility.

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[*] We recollect observing, when a boy, that on the main county road the limb of a tree grew descending toward it, until at last the traveller was obliged to throw back his gig top, get out and lead his horse to keep from being brushed out. The equestrian, to be sure, could dodge it by lying on the pommel of his saddle, and to this inconvenience all the county submitted up to the time of our leaving it. The overseers of the road were too lazy to climb the tree and cut off the offending member; and whether the grand jury have since presented the nuisance, this deponent knoweth not.

The subject of common county roads is, as we said before, well worthy of regard; it is one of general interest. It comes within the purview of this journal, and we shall be obliged to any gentleman who will take it up and discuss it in a condensed manner, as applicable to the condition and circumstances of the slave-holding states. Our attention was called to it by finding on our table the following]

Plan for Improving the Roads in Pennsylvania.

The following plan for the improvement of our roads is not considered perfect, but it may draw the attention of the public to a subject very interesting to Pennsylvania.

Without presuming to calculate at what time the roads in Pennsylvania, in the neighbourhood of the cities, will become intolerable under the present system, this being now not worthy of consideration, as they have already arrived at a state of badness very detrimental to the welfare of the citizens, the value of their farms, mills, &c. and injurious to the resources of the state—necessity will impose on us the improving of our common roads, so we may as well think of beginning.

With a view to this end, the following plan is suggested, and it is submitted to the public in the form of an act of assembly; in drawing this up, the principal object has been to render it simple and explicit, avoiding technical terms; the reason for this is, the law has to be carried into operation by plain men, whose convenience should be consulted as far as comports with public interest.

An Act in addition to the laws already in existence, defining the powers and duties of the Supervisors of Roads.

Whereas, the state of Pennsylvania has, for the purpose of improving the circumstances of the citizens, and developing the resources of the state, undertaken the making of canals, and also for the same purposes has encouraged the making of turnpike roads, by chartering companies for that purpose, and subscribing to the funds of those companies:

And whereas, in the nature of things, those canals and turnpike roads, although influencing the general circumstances of the state, leave the great body of the people still without reasonably good roads, to the neighbourhood of their respective farms, mills, forges, factories, &c. &c. so that it is, during some seasons of every year, very difficult to transport the produce of their farms and mills, &c. to a market, or to the canals and turnpike roads: and further, there are many farms, mills, and useful establishments so located, that there is no probability of canals or turnpike roads ever being made near to them:

And whereas, to render the canals and turnpike roads useful, it is of primary importance that there should be good roads extending from them into all parts of the country:

Therefore the General Assembly of the State of Pennsylvania has passed the following law:

Section 1st. Be it enacted, &c. That the supervisors of each township in the counties of Philadelphia, Delaware, Chester, Montgomery, and Bucks, are hereby required to make in each year one mile of road in the manner hereafter directed, and the supervisors shall continue to do so, until all the roads under their care in their respective townships shall be so made.

Sect. 2d. Be it enacted, &c. That the roads ordered to be made by this act, shall be made as nearly as possible as is hereinafter described:

First. On each side of the road a ditch shall be dug of at least three feet wide at top, two feet deep, and one foot wide at the bottom; and the earth dug out of the ditch shall be put into the middle of the road, in such manner as to give the whole road between the two ditches a moderate curve, to turn the rain or other water, into the ditch that is on the side of the road nearest the middle of the road; and where it is necessary, for the purpose of giving to the road this regular curve, the sides of the road itself shall be pared down, and what is taken off thrown into the centre if necessary.

Second. The ditches may be kept from the extreme outside of the road, any space not more than four feet, for the purpose of making a foot or side-path.

Third. The ditches may be made more than three feet wide, two deep, and one wide at bottom, if the same shall be deemed necessary by the officers hereinafter mentioned, with whom the discretionary powers set forth in this act are vested.

Sect. 3d. Be it enacted, &c. That the supervisors and the county commissioners for the time being, shall view or survey the roads, and fix upon the size of the ditches, that will best suit the local circumstances of the ground, and the placing the ditches so as to render them most serviceable in forming good roads and comfortable foot or side-paths. And the commissioners and supervisors, at the time this act goes into operation, shall settle and fix the place at which each township shall begin, and the course the supervisors shall carry this improvement of the road; and in doing this, those officers shall keep in view the accommodation of the public and improvement of the county.

Sect. 4th. And be it enacted, &c. That the supervisors are authorized to get those roads made by contract, dividing each mile into four equal parts, as nearly as may be; and each of those parts of the mile shall be made a special contract; this regulation is here enacted, that the quantities of work to be done may be placed within the reach or command of labourers or farmers in the neighbourhood of the work. The supervisors shall make public advertisement of this division, stating the work that is to be done; this advertisement shall be made at least two weeks previous to the time of receiving proposals; the first day for re̒ceiving proposals shall be mentioned in this advertisement, and proposals shall continue to be received for one week; and within four days after the expiration of the days for receiving proposals, the supervisors shall declare the names, and notify those whose offers have been accepted. Or the supervisor may put the doing of the work up to public auction, giving preference to the person that offers to do the work at the lowest price; and when there are more than one offer at the same price, the person who has made the offer first shall be preferred, and all bids must be made by speaking aloud, and not by signs; and the supervisors are hereby authorized to hold this auction, which is declared not to interfere with any of the laws now in existence for the regulation of auctions. The time and place where the auction is to be held, shall be advertised at least for seven days previous to its being held. Should it happen that no person offers to undertake the work, or the offers are evidently at prices higher than the supervisor could get the work done for, by hiring labourers, the supervisor is at liberty to do so, and ought to do it when it is to benefit the public. The supervisor shall in all cases mark the offers to do the work in the order he receives them, so that in the event of two offers being at the same price, the offer that was first received shall be preferred; and all the offers shall be preserved, and laid before the auditors at the time they settle the supervisor's accounts. The offers must be written and sealed up, and not opened by the supervisor, until the expiration of the seven days allowed for receiving offers. Contractors shall commence and finish the work they undertake within the time specified in the contract. And as the ground is soft in Spring, it is recommended to take advantage of this circumstance, and all others that will lessen the expense of thus improving the state. If the supervisors deem it for the public interest, they may require contractors to give security for the execution of the work and fulfilment of the contract; this security shall be in a sum equal to the amount of the work contemplated in the contract; and on no account shall the supervisor pay to any contractor, more than fifty per cent. of the value of the work actually finished.

Sect. 5th. And be it enacted, &c. That in cases of difficulty, or where information is wanted, the supervisors and commissioners shall have the power to call to their aid as a council of advice and consultation, three respectable citizens of the township, who it is reasonable to presume are capable of aiding them in the case, and a notice under the hand of the supervisor shall be the form of requiring their attendance at the time and place specified in the notice.

Sect. 6th. And be it enacted, &c. When the contractor of any section has finished what he, (or they,) undertook to do, the supervisor shall call on three respectable citizens of the township, and with them view the road; and if the same in the opinion of those three citizens is finished agreeably to the contract, then the balance that remains unpaid shall be paid to the contractors, or as soon after as the contractor satisfies these viewers, that he has corrected any defects they have pointed out in the execution of the contract. In the event of any disputes taking place between the supervisors and contractors, it shall be the duty of the supervisor and contractor to wait upon one of the justices of the peace, whose duty shall be to appoint three respectable citizens of the township as arbitrators; and these being duly sworn to do impartial justice, their award in the case shall be final; a copy of this award, signed by the foreman of the arbitration, shall in all cases be presented to the auditors at the time of settling the supervisor's accounts.

Sect. 7th. Be it enacted, &c. That after this act is passed, elections for supervisors shall be held at the time and place of the general elections, except in the present year, 1828; in it the election shall take place at the usual time, and the supervisors elected take charge of the roads until the first day of January 1829. And under this act it shall be the duty of the sheriffs to give notice of the elections for supervisors. The object of this alteration in the time of election is, that supervisors may have it in their power to take advantage of the spring season, the ground then being dug with less labour than in summer, and labourers not so generally employed; and that having the whole season that is favourable for working before them, the supervisors may do all and every thing in the time and manner most beneficial to the public service. It is by this act required that the sheriffs shall notify the citizens that are elected to the office of supervisor. In this act, although the supervisor has been spoken of in the singular number, where there are more than one, they have concurrent authority, as under the present law, to which this is an addition. And without regard to the language in which this law is drawn up, there may be one or more persons included in any contract. And all contracts must be made for a price per each yard of the length of the road, and not by what is termed "the lump;" this regulation is made that the prices and terms on which the roads improved by the operation of this act, may be clearly understood by the contractor, the supervisor, and the public.

An uncultivated mind, like unmanured ground, will soon be overrun with weeds.

LADIES' DEPARTMENT.

(From the Providence Evening Gazette.)

ECONOMY IN A FAMILY.

There is nothing which goes so far towards placing young people beyond the reach of poverty, as economy in the management of their domestic affairs. It is as much impossible to get a ship across the Atlantic with half a dozen butts started, or as many bolt holes in her bottom. It matters not whether a man furnish little or much for his family, if there is a continual leakage in the kitchen, or in the parlour; it runs away, he knows not how; and that demon, *waste*, cries more, like horse leech's daughter, until he that provides has no more to give. It is the husband's duty to bring into the house, and it is the duty of the wife to see that nothing goes wrongfully out of it; not the least article, however unimportant in itself, for it establishes a precedent; nor under any pretence, for it opens the door for ruin to stalk in, and he seldom leaves an opportunity unimproved. A man gets a wife to look after his affairs; to assist him in his journey through life; to educate and prepare his children for a proper station in life, and not to dissipate his property. The husband's interests should be the wife's care, and her greatest ambition carry her no further than his welfare and happiness, together with that of her children. This should be her sole aim; and the theatre of her exploits is in the bosom of her family, where she may do as much towards making a fortune as he possibly can in the counting room or the workshop. It is not the money *earned* that makes a man wealthy; it is what is saved from his earnings. A good and prudent husband makes a deposit of the fruits of his labour with his best friend; and if that friend be not true to him, what has he to hope; if he dare not place confidence in the companion of his bosom, where is he to place it. A wife acts not for herself only, but she is the agent of many she loves, and she is bound to act for their good, and not for her own gratification. Her husband's good is the end at which she should aim, his approbation is her reward. Self gratification in dress, or indulgence in appetite, or more company than his purse can well entertain, are equally pernicious. The first adds vanity to extravagance; the second fastens a doctor's bill to a long butcher's account, and the latter brings intemperance, the worst of all evils in its train.

Address of a Little Girl to her Mother, on her Birth Day, April 7.

The simplest flower that in the garden grows,
  Requires, to rear it, prudence, care and skill;
It must be shelter'd from rude Winter's snows,
  As from the summer's fervid heats that kill.

My pretty pet birds, whose soft notes impart
  Something so sweet, as often to engage
My youthful fancy, and delight my heart,
  Must too be fostered in their gilded cage.

And I, upon life's varied, gay parterre;
  A lovely, fragile, hapless flow'ret stand;
Like my bright birds, requiring constant care,
  And watchful kindness, from some gentle hand.

To soothe each childish grief, each fault to mend,
  And round my brow fair virtue's wreath to twine,
Is thine, my mother, dear and tender friend;
  But ah! Affection, Gratitude, *are mine!*

And may I never disappoint thy hopes,
  But prove thy fondness, care, were well applied;
And like some blossom, which in April opes,
  Bloom through my destin'd span, thy joy, thy pride.
S.

SPORTING OLIO.

BOXER,

Was got by the imported horse Medley, his dam by Colonel Baylor's Old Fearnought, and his grandam by old Jolly Roger, out of a full bred imported mare. **Edmund Taydor.**

Hanover, Feb. 1, 1796.

QUICKSILVER,

Was got by the imported horse Medley, his dam by Wildair, his grandam by the noted horse Spark, out of a full bred Jolly Roger and Valiant mare of Col. S. Overton, of Hanover county.

Samuel Burch.
Charlottesville, Feb. 20, 1796. **Edwd. Moore.**

MELZAR,

Was got by the imported horse Medley, his dam by Wildair, his grandam by the imported horse Vampire out of Col. Braxton's imported mare Kitty Fisher. Vampire was got by Regulus, his dam by Steady, his grandam by Partner, his great grandam by Greyhound. **John Hoskins.**

February 24, 1796.

BLAZE,

Was got by Vandal; Vandal by Spectator, and out of the sister to Crysolite. Crysolite is the sire of Hebe, the dam of Dare-Devil.

York, March 8, 1796. **Hugh Nelson.**

CORMORANT.

"I do certify that Cormorant was bred by me, and got by Woodpecker; his dam Nettletop by Squirrel; his grandam by Bajazet; great grandam by Regulus; g. g. grandam by Lonsdale's Arabian; his g. g. g. grandam by Darley's Arabian; his g. g. g. g. grandam by the Byerly Turk; his g. g. g. g. g. grandam by the Tafolet Barb; his g. g. g. g. g. g. grandam by Place's White Turk, out of a natural Barb mare. **Egremont.**"

Feb. 1798.

THE MARYLANDER,

Was gotten by the famous running horse Rattler, which was by Sir Archy; his dam the celebrated running mare Nolime-tangere by Top-gallant, the brother of Sir Archy; his grandam the dam of Sir Archy. **Wm. Thornton.**

March 1827.

PEDIGREE OF RASSELAS,

Near 16½ hands high, standing at Josiah W. Weare's, near Battletown, Frederick county, Va., at $15 the season, $10 single leap, $25 insurance. He was got by the celebrated horse Sir Archie, (foaled 29th April, 1822,) his dam by the imported horse Play or Pay, his grandam by the celebrated horse Belle Air; his great grandam by the imported horse Pantaloon; his g. g. grandam by the imported horse Janus.

April, 1829.

[*From an Old Sportsman and Connoisseur.*]

Distemper in Dogs.

Sulphur, syrup of buckthorn, and jalap in a bolus, and shave and blister the neck.

Mash for a Horse after a Severe Hunt.

Two quarts of bran;
Two quarts of oats;
One quart of malt—wet with boiling water covered with a bag; when milk warm put in that a spoonful of honey, and give it all to him warm; water, a bucket at a time, aired; put a bundle of straw over him after being rubbed, and over that his blanket; don't expose him next day.

MISCELLANEOUS.

MNEMONIKA.

[Mr. E. J. Coale, bookseller of this city has lately published a work, entitled, "Mnemonika, or the Tablet of Memory, being a register of events from the earliest period to the year 1829." We ask the attention of our readers to this work, a large duodecimo of 332 pages, containing upwards of 4000 articles, blended in alphabetical order, containing valuable information, comprehending an epitome of Universal History, Chronology, Biography and Geography, with Statistical Tables. While this volume may be read consecutively almost as a regular history, it serves by its alphabetical arrangement, as a book for daily reference, and will be exceedingly valuable to all persons especially to those who reside in the country and have not had ready access to extensive libraries. That our readers may understand the value of this work, we make a few extracts from it, which we may continue to do occasionally hereafter.]

Extracts from Mnemonika.

Gardening introduced into England from the Netherlands, from whence vegetables were imported, till 1509; the pale gooseberry, with salads, garden roots, cabbages, &c. brought from Flanders, and hops from Artois 1520; the damask rose brought by Dr. Linacre, physician to Henry VIII. pippins brought to England by Leonard Mascal, of Plumstead, in Sussex, 1525; currants or Corinthian grapes, first planted in England, 1555; brought from the isle of Zant, belonging to Venice; the musk rose and several sorts of plums, from Italy, by lord Cromwell; apricots brought by king Henry VIII's gardener; tamarask plant from Germany, by archbishop Grindal; at and about Norwich the Flemings first planted flowers unknown in England, as gilliflowers, carnations, the Provence rose, &c. 1567; woad originally from Thoulouse. in France; tulip roots first brought into England from Vienna, 1578; also beans, peas, and salads, now in common use, 1660. To which subjoin the following list, with the countries whence they originally came.

Rye and wheat, from Tartary and Siberia, where they are yet indigenous; barley and oats unknown, but certainly not indigenous in England; rice from Ethiopia; buckwheat, Asia; borage, Syria; cresses, Crete; cauliflower, Cyprus; asparagus, Asia; chervil, Italy; fennel, Canary Islands; annise and parsley, Egypt; garlick, the East; shallots, Siberia; horseradish, China; kidney-beans, East Indies; gourds, Astracan; lentils, France; potatoes, Brazil; tobacco, America; cabbage, lettuce, &c. Holland.

Jassamine comes from the East Indies; the elder tree from Persia; the tulip from Cappadocia; the daffodil, from Italy; the lily, from Syria; the tube rose from Java and Ceylun; the carnation and pink; from Italy, &c.; ranunculus, from the Alps; apples, from Syria; apricots, from Epirus; artichokes, from Holland; celery. from Flanders; cherries, from Pontus; currants, from Zant; damask and musk roses, from Damascus, as well as plums; hops, from Artois and France; gooseberries, from Flanders; gilliflowers, carnations, the Provence rose, &c. from Thoulouse, in France; oranges and lemons from Spain; beans and peas from Spain.

Gas, use of introduced in London, for lighting shops and streets, 1814; first into the U. States, at Baltimore, 1821.

Fruits of foreign countries first brought into Italy, 70 before Christ, and flowers, sundry sorts before unknown, were brought into England in the reigns of Henry VII. and VIII. from about 1500 to 1578. Among others of less note, the musk and damask roses, of great use in medicine, and tulips. Several sorts of plum-trees and currant-plants; also saffron, woad, and other drugs for dying, attempted to be cultivated, but without success.

Coffee Trees were conveyed from Mocha to Holland, in 1616; and carried to the West-Indies in the year 1726; first cultivated at Surinam by the Dutch, 1718; its culture encouraged in the plantations, 1732.

Navarino, battle of, total destruction of the Turkish and Egyptian fleets, by the combined fleets of England, France and Russia, under the command of sir Edward Codrington, October 20, 1827.

Navigation act, English, passed, 1651.

Navy of England, at the time of the Spanish armada, was only twenty-eight vessels, none larger than frigates. James I. added ten ships of 1400 tons, the largest then ever built. In 1798, the British navy in commission consisted of 140 ships of the line, 22 of 50 guns, 165 frigates, and 317 sloops of war. Number of officers of the rank of lieutenants and upwards, was 2,980; expenditure for the navy this year was £12,591,728 or in dollars, $55,907,272 32.

Navy of the United States in 1829, consists of seven ships of the line, 7 frigates of the first rate, 4 of the second rate, 12 sloops of war, 7 schooners; the oldest vessels are the United States, the Constitution and the Constellation, all built in the year 1797; now building in the United States, 7 ships of the line, and 6 frigates; of the rank of lieutenants and upwards, there are 325; surgeons and assistant surgeons, 97; pursers 41; chaplains 9; midshipmen 445; sailing masters 30; boatswains 17; gunners 19; carpenters 13; sail-makers 14. In the marine corps there are 1 colonel, 9 captains, and 39 lieutenants; the oldest officer in the navy is John Rodgers, President of the Board of Navy Commissioners, who entered the service in March, 1798; date of his present commission, March 5, 1799. There are 15 navy agents, 7 naval store keepers and 8 naval constructors. Estimate required for the navy during 1829, is $3,006,277.

Needles were first made in England by a native of India, 1545; the art lost at his death; recovered by Christopher Greening, in 1560, who was settled with his three children, Elizabeth, John, and Thomas, by Mr. Damer, ancestor of the present earl of Dorchester, at Long Gredon, in Bucks, where the manufactory has been carried on from that time to this present day.

Morris, Robert, born in January 1733—4 O. S. in Lancashire, arrived in this country at the age of 13 years; one of the signers of the declaration of independence, and during the war of the revolution, supported the credit of the United States; established the first bank in Philadelphia, the bank of North America, 1781, which lent for the public service of the government within the first six months after its organization, $480,000; without the financial talents and services of this distinguished man, it is probable all the physical force of the country would have proved unavailing to establish the independence of the United States; when the paper of the congress of United America was worth nothing, the paper of Robert Morris supplied the deficiency; his personal credit was decidedly better than the credit of the United States government; he was one of the convention which framed the constitution of the United States; a member of the first senate of the United States; his most intimate friends were Washington, Hamilton, and Governeur Morris. When offered the appointment of first secretary of the treasury by Washington, he declined, but recommended his friend Alexander Hamilton. His unfortunate land speculations embittered his old age, which ought to have been surrounded with all the ease and happiness that earthly gratitude could bestow; died 8th May, 1806.

THE FARMER.

BALTIMORE, FRIDAY, APRIL 24, 1829.

FOREIGN AGRICULTURAL CORRESPONDENCE.

J. S. Skinner, Esq. *London, January 20th*, 1829.

Dear Sir,—Nothing that I have seen in England has so highly delighted me as the improved state of her agriculture. My ardent love of the beauties which God has so liberally dealt out to that portion of earth which lies without the "smoke of cities," has perhaps led me into the belief that in nothing is she so worthy of admiration as in the labour and money bestowed upon the reclamation of her wastes, bogs and morasses, and the taste displayed in the adaptation of every spot to its proper and legitimate purpose. I say nothing of the splendid seats of the nobility and gentry, they are but "circumstances in her condition," it is the general appearance of the country, ride in whatever direction you will from the metropolis, that excites my admiration and wonder.

The prominent circumstances that strike the eye of an observant American travelling in England, are the deep verdure of her fields at all periods of the year, the almost total want of woods of every description, the minute division of the fields by means of live hedges, and the startling superiority of English stock of *every* kind, over that of the United States. The deep verdure is the effect of that peculiar moistness of the climate which I am patriotic enough to think places England below my own dear America, as it regards natural advantages. If you have not been in England, really you can form no idea of the intolerable vexation attending continual showers, or the continual apprehension of them. Your umbrella is as necessary a part of your *dress* as your hat, and quite as common. Mud and rain, rain and mud, and a hackney coach belong to the every-hour look of a resident in England who exposes himself to the weather; trees, of all descriptions, fences, buildings have all the same verdure—that is, they are all covered from the excessive humidity of the climate, with a kind of ooze, resembling that found in our rivers. There is so much moisture in the earth that it is impossible to cultivate it on a smooth surface. Hence the perpetual recurrence of ridges and drains, the former wider or narrower, the latter deeper or shallower, as the situation of the land, its elevation or depression may require. The labour and expense attending this process cannot be estimated by those unacquainted with it. If it were necessary in the United States, with the present high price of labour and the low price of produce, it would be a bar to the cultivation of the earth. Happily it is not, and my observation of the soil and climate where the practice obtains, leads me to join heartily with your judicious friend Mr. Powell of Philadelphia, (who has, by the by, more practical good sense than half the agricultural writers of our country,) that in our climate, cultivation should take place on a level surface always, the object being to *retain* moisture instead of excluding, or evaporating it. If I live to resume the happy business of a farmer, I shall give up ploughing among corn from a conviction that it is injurious.

Your enthusiastic friend, Mr. Kirk, of Delaware, so passionate an admirer of live hedges would be much gratified in travelling through England. Except now and then park palings, and brick walls, and *sparsim* a few, very few fields, he could see nothing else. But the reason for its being adopted here does not hold good in the United States, nor will it ever, if due care be *now* used to plant Chestnuts and Cedars. It is here adopted of necessity, stern, unyielding necessity—there is nothing else to divide the fields with. But when you witness the time and protection necessary till they become *fence*, which is not much less than ten years, the space of land they take up, with the greatest care in narrowing the ditches on each side, not less than twelve feet, and after all the severity of the laws respecting stock running at large, and the plenty of grass growing in every field, conspire to render stock better taken care of and less restless than in America, I am persuaded it will never become *the* fence of our country. A writer in the American Farmer recommends plantations of trees adapted to fencing with a view to future wants—that is, that calculating the period of decay of a fence of chestnut rails, and locust or cedar posts, at twenty years, a plantation be formed at the time a new fence is put up to supply the dilapidations of time. This is an excellent idea, and should be used by the American husbandman.

In the beauty and excellence of our stock, we are half a century behind the English. The blood, bone and muscle of the horses, not less of that portion of them reared for and devoted to agriculture, than of those beautiful creatures one sees at Tattersall's, or, on fine days, in Regent's Park, cannot be sufficiently admired. I am no admirer of the Lancashire large breed of horses; indeed, my taste has always been for "neat bits," to use a cockneyism, carricatured in the windows of the Strand print shops. I cannot see why smaller boned dray horses would not answer as well as those elephant-like animals now employed about the London and Liverpool docks. They say not, and I am contented.

I had no idea of English sheep till I came to England; their size, beauty, fleece, and tendency to fatten, place them beyond any thing we have in America. I think, with Mr. Featherstonhaugh, that this is to be altogether attributed to the *turnip* husbandry. Large fields of that vegetable are found on every farm, where the raising of sheep is made a business. The display of fat sheep at Smithfield, offers an inducement to one to thread the crooked and dirty streets which lead to it. While on this subject, I must remark that the low price of mutton in America discourages the sheep grower from attempting to improve his flock. At Boston, I have seen medium mutton sold at 2½ cents per lb. per carcass; here mutton is selling at 11½ cents per lb. at Smithfield, and retailing at from that price to 15 cents. But I weary you.

Yours, truly, J. A. J.

☞ **Pearl Barley.** A number of our subscribers in Missouri, have requested us to publish in the Farmer, the method of making Pearl Barley. We believe Barley is pearled by extensive machinery, and that the process would require a pretty extensive treatise. However, if we are mistaken, we shall be obliged to any of our friends for the information called for.

☞ Our subscribers in Loudoun and Fauquier counties in Virginia, will notice an error in our last number, in which it was stated, that all east of the Blue Ridge, and north of James River, had been assigned to Mr. Minor, as his collection district for the Farmer. We ought to have excepted Loudoun and Fauquier, in which as well as west of the Blue Ridge, R. Worthington, Esq. is authorised to collect our accounts.

☞ In reply to "A Subscriber," in the American Farmer, dated South Hampton, Virginia, March

20th, 1829. I have to observe that Fowl Meadow Grass will grow well and produce a large crop on the land he speaks of, the hay of which, when well cured is of a superior quality.

The seed may be had of William Child, No. 88, South street, Bowley's wharf.

☞ The Flour Market.—Business in the flour market appears to be entirely suspended; our inquiries among the principal dealers yesterday, resulted in nothing satisfactory as to prices. Our quotations, therefore, are to be considered entirely nominal. The wagon price of Howard street, generally ranged at $6, but this is also nominal, as there is literally nothing doing.

Latest Foreign News.

There has been several arrivals from England since our last, bringing advices to the 15th March, from London, and to the 17th from Liverpool. The catholic question still continued to occupy the public mind, almost exclusively; it was, however, fast approaching a final adjustment. In the House of Commons a question, which involved the principle of catholic emancipation, had been taken and decided as follows. For it, 348; against it, 160; majority in favour of catholic emancipation 188.

On Tuesday, the 10th of March, Mr. Peel introduced his bill for the relief of the Roman Catholics, which is published at length in the London papers. The catholics are to be admitted by the operation of that bill to all offices legislative and executive which are the objects of ambition, and which confer power, with the exception of three, the office of Regent of the Kingdom, Lord Chancellor, and Lord Lieutenant or other chief governor of Ireland; excluding them only from those offices connected with the church establishment of England, which consistently with the principles of their own religion they could not hold.

The Catholic dignitaries are prohibited, under a penalty of one hundred pounds, from assuming the title of any Archbishopric within England or Ireland. The London Courier says that this is no hardship, since the Archbishop of Armagh may take the title of Archbishop of Leinster and so on, and that the Roman Catholic Bishops may assume the names of cities and towns, which are not the sees of Protestant Bishops.

The Jesuits receive the hardest measure of any class of persons mentioned in the bill. Every Jesuit in the kingdom, and every member of any other religious community of the Romish Church, bound by monastic vows must procure himself to be registered within six months after the passing of the act, under a penalty of 50 pounds. Every Jesuit or other person bound by monastic vows hereafter entering the kingdom, commits a misdemeanour and is liable to banishment, unless he be a natural born subject. Those who take upon themselves the monastic vow within the kingdom are made liable to banishment, and those who administer it to fine and imprisonment. Religious communities of females are, however, exempted from the operation of these penalties.

This bill was read a first time and ordered to be printed. Mr. Peel then introduced a bill for raising the amount of the qualifications of electors for knights of the Shire in Ireland, from a freehold of the yearly value of 40 shillings to one of the yearly value of 10 pounds. This bill was also read. The Tuesday following was then fixed upon for the second reading of both the bills.

From the London New Price Current of March 13.

Cotton.—The inquiries after cotton continue steady and considerable; the purchases of cotton for the week ending last night inclusive, consist of 520 Bengal, 3¾d a 4 5-8d; 2725 Surat, 1¼d a 5d; 30 Pernams, 7 1-8d; 10 New Orleans, 7d; 350 Bowed, 6d; 30 Peruvian, 6 1-8d. The prices of cotton are a shade higher than the late public sales.

Corn Exchange, March 14.—The arrivals since Monday are very short of English as well as Foreign Wheat, and the duty on the latter, by the last weekly average, being now 6s 8d per quarter, the sales this morning were made with more freedom, and, if any thing, on rather better terms. Average for the last week—Wheat 66s 6d; Barley 31s 6d; Oats 22s 5d; Rye 36s 11d. Aggregate average of the six weeks, Wheat 71s 10d; Barley 33s 8d; Oats 22s 11d; Rye 39s 9d. Duty now payable on Foreign Corn—Wheat 6s 8d; Barley 12s 4d; Oats 13s 9d; Rye 11d.

Liverpool Market, March 16.—The Cotton market has experienced some revival during the past week, and the sales of all descriptions amounted to 14,250 bales, including 40 Sea Islands, at 10¾ a 11d; 30 stained, 6 a 7d; 9000 Upland, 8920 at 5¾ a 6 1-8d, and 80 at 6¼ a 6½d; 1780 Orleans, 1750 at 5¾ a 7½d, 30 at 7 5-8d; 540 Alabama, 506 at 5¼ a 5¾d, 33 at 6 7-8d.

The weight of the business, you will observe, has been in Upland, and an advance of 1-8d per lb. in all descriptions of American, from the lowest point of the week previous, was obtained, especially on the middling qualities; holders have manifested more firmness than for some time past, and appear disposed to contend for a further advance. Scarcely any inquiry for Sea Island and prices barely supported; Brazils were offered freely at lower rates. About 1500 of the Upland were on speculation and the import during the week was only 3817 bales, all American. The accounts from Manchester are not encouraging, as respects trade generally but the export demand for Yarn is extensive. The sales of Cotton on Saturday the 14th inst. were computed at 2500 bales.

There was considerable activity in all descriptions of Grain, and Wheat has improved 1s a 2s per qr: on the 10th inst. 1500 bls of New Orleans Flour were brought forward at auction, and all sold at 33s a 34s per bl. and 300 of Baltimore, partially damaged, at 32s9 a 33s7 per bl. The sales of Cotton to-day are about 1500 bales.

Prices Current in Boston, April 17.

Apples, best, bbl. $.2.00 a 2.50. *Beans*, white, bushel 1.00 a 1.37. *Beef*, mess, bbl. 10.00 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 8.75 a 9.00; Genesee, 8.75 a 9.00; Rye, best, —. *Grain*, Corn, bush. .63 a 65; Rye, .60 a .66; Barley .67; Oats .35 a .38. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 16.00 a 16.50; Navy, mess, 13.00 a 13.50; Cargo, No. 1, 13.00 a 13.25. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3 00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top .62 a 1.00; Lucerne, lb. .50; White Honeysuckle Clover, .50; Red do. Northern, .7 a .9; French Sugar Beet 1.50; Mangel Wurzel 1.50. *Wool*, Merino, full blood, washed, .35 a .41; do. do. unwashed, .22 a .26; do. three-fourths washed, .30 *a* .35, do. half and quarter washed, .28 a .33; Native, washed .25 a .28; Pulled, Lambs', 1st sort, .37 a 41; do. do. 2d sort, .25 a .30; do. do. spinning, 1st sort. 30 a .33.

Prices Current in New York, April 18.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .10 a .12; Upland, .8¾ a .10½; Alabama, .9 a 11. *Cotton Bagging*, Hemp .19 a .21; Flax .15 a .18. *Flax*, American .8 a .9¾. *Flaxseed*, rough, tierce ——; clean ——. *Flour*, N. York, bbl. 6.37½ a 6.50; Canal 7.75 a 8.00; Baltimore Howard st. 6.87½ a7; Richmond city mills, 6.50; country, 6.25; Alexandria, 6.25 a 6.37½; Fredericksburg 6.25; Petersburg, 6.25; Rye Flour, 3 62½ a 3.75; Indian Meal, per bbl. 2.50 a 2.62½; per hhd. 14.00 a 14.50. *Grain*, Wheat, North River, bu. —; Virginia 1.27 a 1.28; N. Carolina —; Rye, North, .70 a .72; Corn, North, .54 a .56; Barley, .53 a 55; Oats, South and North, .31 a .35; Peas, white dry 7 bu. 6.00; Beans, 7 bu. 8.00 a 8.50. *Provisions*, Beef, mess 9.25 a 9.75; prime 7.25 a 7.75; cargo 5.50; Butter, N. York, 12½ a 16; shipping, .8 a .11; Lard, .5½ a .6½; Pork, mess 12.50 a 13.00; prime 8.75 a 10.00; cargo 6.50 Hams, Virginia, per lb. .9 a .10; Northern .9 a .10. *Rice* .3 a .3½; Whiskey, rye, gall. 23½ *a* .24; Cider Brandy .30 a .33. *Tobacco*, Virginia .3½ a .6½; Kentucky, .3½ a .6½. *Wool*, Merino, American fleece, .32 a .38; Pulled, .32 a .35; common, .18 a .25.

ALMANAC.

1829. April—May.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 25	5	15	6	45	13	30	morn.	
Sunday,........ 26	5	14	6	46	13	32	0	46
Monday,....... 27	5	13	6	47	13	34	1	30
Tuesday,...... 28	5	12	6	48	13	36	2	11
Wednesday,.. 29	5	11	6	49	13	38	2	49
Thursday,..... 30	5	10	6	50	13	40	3	27
Friday,......... 1	5	9	6	51	13	42	4	5

Moon, Last Quarter, 26th, 9 h. 48m. Mg.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

Tobacco.—Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 6.00—red, 5.00 *a* 8.00—fine red, 8.00 *a* 10.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red 8.00 *a* 12.00—fine yellow 10.00 *a* 20.00—Rappahannock, 4.00 *a* 6.00—Kentucky, common 5.00 *a* 7.00—wrapping, 6.00 *a* 8.00.

Flour—best white wheat family, $7.75—superfine Howard street, 6.50; city mills, 6.25 *a* 6.50; Susquehanna, 6.25 *a* 6.50—Corn Meal, bbl. 2.50—Grain, best red wheat, 1.25 *a* 1.35—best white do. 1.35 *a* 1.50—ord. to good, .70 *a* 1.25—Corn, .40 *a* .42—Rye, .45 *a* .50—Oats, .26 *a* .28—Beans, 1.00 *a* 1.25—Peas, .55 *a* .60—Clover seed, 4.00 *a* 4.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—Barley, .45 *a* .50—Flaxseed, 1.00—Cotton, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alabama, .10 *a* .11 Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .12—Whiskey, hhds. 1st pf. .21 *a* .22—in bbls. 23—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 3.25; No. 2, 2.87½ *a* 3—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Baltimore cured, new, .9½ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .29—Plaster Paris, cargo price per ton, $7.00, ground, 1.37½ bbl.

Marketing.—Apples, bush. 2.50 *a* 3.00; Squabs, 18¾; Turkies, each, 1.25; Butter, lb. .25 *a* 37½; Eggs, .11 *a* .12½; Potatoes, Irish, bush. 1.00; Fowls, doz. 3 *a* 3.75; Ducks, 3.00 *a* 3.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .75 *a* .87½; Sausages, lb. .8; Onions, bush. .50; Beets, bush. 1.00; Turnips, bush. .25; Terrapins, 4.00 *a* 4.50 per doz; Pork, 5.50 *a* 6.00 cwt.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets, where every description of printing is neatly executed.

AGRICULTURE.

FARMING MEMORANDA.

Mr. Skinner: *April* 13, 1829.

Having myself borne political and party persecution, through a long and dreary season, I am the less scrupulous in persecuting *you* with agricultural matter; since it is for the public good, I give my animadversions. In these times of pseudo patriotism, when the lucubrations of simple and obscure individuals pass as dross among *distinguished characters*, I am desirous to remain an anonymous scribbler for your useful journal: this seems to be the only possible means of having things judged of entirely in the abstract. The time may yet come when the mask shall be thrown off: i. e. if you shall be pleased to publish this or any succeeding; and, then, only to relieve you from any suffering arising from the criticisms of superior correspondents.

A practical farmer from early life, I had the honour of personal communications with the great father of our glorious country. Both of us Virginia farmers, a desideratum was by that genuine patriot, offered me for a solution: The number of divisions ("or shifts,") best suited to our circumstances? His own suggestions, of genial influence, determined on five. With all due respect for the old and honourable dominion, the mistaken order, or system of three "land killing" shifts, neither of us hesitated to renounce! Seven was also considered; in some cases it is assuredly of great convenience and profit. Such a state of things as would justify its adoption, is left to the judgment of those who can rightly perceive the advantages; whilst I beg leave to offer you a view of agricultural economy, as exhibited on a small scale, and *practised* more than thirty years. The scale itself was furnished by the "force of circumstances." It consisted of three hundred acres old, *thoroughly* "killed" sandy loam. Eighteen "sharers" (the term peculiar to Virginia,) customarily producing a crop of 500 bushels of wheat annually, (the staple crop,) were reduced by the plunder of Lord Cornwallis to nine. In three years time, the *crops* increased annually, till at the end of nine or ten years, they were more than trebled; and that, too, without any other manure than the farm-yard had furnished. A casualty prevented the application of gypsum, so early as 1792. A quantity had been shipped from Philadelphia, against the prejudices then existing in that neighbourhood. The nine "sharers" before recited, consisted of six men, three boys, four horses, twelve oxen, two carts, convertible into one wagon, with its rick-body; together with cows and sheep, as will be seen in a correspondent statement, herewith transmitted. I generally used wheel ploughs, made in Philadelphia, the cradle of American arts. Two yoke of oxen to these, turned up 1½ acres each per day in the month of August, feeding alone on the herbage of the glebe they were working. In all other seasons supported by the offal of the crops; Indian corn never allowed, beyond a small portion of "nubbins" in early spring. The horses alone cultivated the corn; did all harrowing; treading out small grain; and *too* often "four in hand," in the true old Virginia destructive fashion! Farther details are withheld, because no one is very much delighted with *neglect*. One *fact* however, concludes this unprofitable article. It may excite commentary, worthy or otherwise, since, if doubted, it can be proved by written document. Virginians are *prone to betting*. A case occurred in the summer of 1794: A crop of wheat was estimated at 1500 bushels the minimum; the maximum at 1650; the measured crop was found to be 1639 bushels! Thus leaving to be questioned, how far such a correspondent is worthy of your notice, as him who *again* subscribes himself, Yours, Gloucester.

DIAGRAM OF THE FIELDS.

No. 5. CLOVER: To be pastured or otherwise, as shall be found, from time to time, most advantageous. And, then to receive the whole crop of manure, preparatory to corn.	HOUSE AND GARDEN. Lots, No. 1 *a* 7, and Farm Yard. *Note.*—Lots of 4 acres each: dunged: *all* the annual manure on *one* at a time.	Field No. 1. CORN. *Note.*—The cycle completed from A to E: pursuing the system (which from locality, has been found advisable,) is the plan not self-evidently good? Regarding at all times variations in the price or value of things.
No. 4. CLOVER.	No. 3. BARLEY.	No. 2. WHEAT.

A.	B.	C.	D.	E.
No. 1—Corn	1—Wheat	1—Barley	1—Clover	1—Clover
2—Wheat	2—Barley	2—Clover	2—Clover	2—Corn
3—Barley	3—Clover	3—Clover	3—Corn	3—Wheat
4—Clover	4—Clover	4—Corn	4—Wheat	4—Barley
5—Clover	5—Corn	5—Wheat	5—Barley	5--Clover
say 1829.	1830.	1831.	1832.	1833.

The above is a sketch only of an exact survey and diagram: by which the contents of every lot, and field, are ascertained, and known to a square yard. The whole of these papers are indeed, but mere sketches. They are all from memory: the originals are within a half day's ride of me, in the hands of a young intelligent farmer; whose talent tends to improve every hint they afford.

The calendar, in its practical uses, served to afford its author, on his return from occasional absence, the means of knowing any thing that had occurred, by the simple trouble only of looking it over, and recollecting *dates*. Furnishing prospectively, the operations, and their results for all time to come.

CALENDAR.

JANUARY. Carrying manure; ploughing; getting fire wood; preparing Corn and Oats for market; littering the yard daily; once a week cleaning stables, &c.; and every kind of work, according to the weather.	FEBRUARY. Carrying manure, &c. &c. as in the last month; sowing clover seed; preparing Oat ground; Fencing. (All transactions to be inserted in this Calendar as they occur, from time to time, viz: a Cow died; Horse do.; Sheep stolen or missing; Pigs, &c. &c. &c.)	MARCH. Sowing Oats; preparing Corn land; Fencing and fires; working in lump; and all other work of this season.
APRIL. Planting Corn, Potatoes, Peas, &c. &c. &c. engaging the whole month.	MAY. Working Corn; cutting Clover; hands detached, fishing on shares; ploughing fallows, generally with two ox ploughs.	JUNE. Harvest; working Corn, &c. &c. Seasonable work. Barley harvest, *once* finished in May.
JULY. Oat harvest; ploughing Corn; treading Wheat; sowing early Turnips, &c.	AUGUST. Treading Wheat; Ploughing; laying by Corn; sowing second crop Turnips, &c. &c.	SEPTEMBER. Sowing Wheat; getting Fodder; cleaning Wheat, &c. &c.
OCTOBER. Sowing Wheat, and generally finishing the work of the last month.	NOVEMBER. Sowing Wheat; finishing sowing Barley; both of these, if possible, finished the last month.	DECEMBER. Gathering Corn; ploughing; getting wood and fence timber; and other early winter's work.

Note extra.—The author of this plan, from various pursuits, after the first fifteen years, was prevented from executing his system in a literal sense; but throughout the whole *term*, however, departed from it, sometimes; nevertheless feels confident in offering it as the most advisable to be observed by farmers of good sound *common sense.*

Abstract of Sheep.

Breeding Ewes,	50	
Wethers, (grown,)	20	
Yearlings,	10	80
Say 40 Lambs yeaned,		40
Reserved Ewe Lambs,	20	
Wethers, (mutton,)	10	
For the table,	10	
Total Lambs.	40	
Old Ewes to sell or use,	20	
Do. good mutton,	10	
In reserve, casualties, &c.	10	
	40	

The extra produce will more than keep up the original stock of 80 head, as above stated—always furnishing one or more *Rams*—thus keeping the flock *pruned* and culled; the ages at all times known, viz: a cropped right ear, one year old; the first slit in the left ear, a mark of two year old, and *so on.*

Abstract of Cattle.

Work Oxen,	12	
Cows,	8	20
2 year old Steers,	4	
2 do. do. Heifers,	2	
Steers under two years old,	4	
Heifers. do. do.	2	12
Total head,		32
Old Steers to kill annually,	4	6
Do. Cows do.	2	
Add		26
Calves for Steers,	4	6
Do. for Cows,	2	
Stock,		32
A Bull of course,		1
Total,		33

Note.—To be revised as casualties occur.—The general result for a gentleman farmer will leave six grown cattle annually for his table, with veals, according to circumstances. Pennsylvania farmers generally, as they should *all* do, sell the best of every thing. Not so Virginia; but *vice versa.*

[It would seem by the following, that a new species of clover, called "flesh-coloured" clover is rapidly extending over France and Germany, that is even earlier in its growth than *lucerne.* According to what is here stated, there can be but little doubt that such a grass would be a valuable acquisition in our dry southern climate on light sandy soils, such as that on which the writer avers he has seen it growing with unprecedented fertility and precocity.—We shall take steps immediately to procure some from France.]

(From the British Farmer's Magazine.)

TRIPOLIUM INCARNATUM.—FLESH-COLOURED CLOVER.

To J. C. London, Esq. F. L. S. &c.

Sir,—Perceiving in your valuable publication, the Gardener's Magazine for October, a very short account of a clover which is rapidly spreading through France and the south of Germany, where it is looked upon with the degree of attention it well merits; we think it might not be uninteresting for you to be furnished with some further notices respecting this annual—the tripolium incarnatum, [farouche, fr.) flesh-coloured clover. We ourselves having witnessed its growth and produce in the south of Germany (from whence we have just returned) can speak with confidence as to its unprecedented fertility and precocity on light sandy soils, which would scarcely repay the culture of any other plant.

We therefore take the liberty of enclosing you the accompanying remarks, which, if found sufficiently interesting, you are at liberty to publish in an early number of your magazine.

—

We were first directed to examine into the qualities of the flesh-coloured clover, from reading M. de Dombarle's opinion concerning it in the Annales Agricoles de Revière; we subjoin a translation and add our own remarks as to a crop which we saw at the royal establishment of Hohenheim, in the kingdom of Wirtemburg.

Five years experience, says M. de Dombarle, in the culture of this plant leave me no further doubt as to the advantages which are to be derived from its propagation in the north of France.

It is true it only gives one cut, but upon the same soil this one cut is equal to two of red clover; but a circumstance which renders it still more valuable than the latter, is its coming early enough to allow the same soil to be prepared for other crops the same year. The flesh-coloured clover consumed green affords an excellent food to all species of domestic animals, even to pigs; but converted into hay it is in a trifling degree inferior to clover or lucern. It is not at all fastidious either as to soil or culture, and although introduced to us from the most southern provinces of France does not suffer from our winter frosts, provided it be a little grown before they commence. But what appears to me to meet the farmer's attention most, is the period at which it is sown, viz.: in the month of August or September. At this time the farmer will know what degree of reliance he may be able to place on his clover crops for the ensuing year; if any part of them should have failed, they may be replaced by this equally valuable fodder,—an important consideration for those who depend on the produce of their artificial grasses for the maintenance of their stock.

It is cultivated as follows:—one slight ploughing after harvest is sufficient to prepare the soil for the reception of the flesh-coloured clover. I have this year, however, tried two methods of cultivation on the same field; the first part I only grubbed up the earth with the six share extirpator, the other part was ploughed. The seed was sown and harrowed in both. That part that was not ploughed is now decidedly the best. The quantity of seed requisite is about 25oz per acre.—*Annales Agricoles de Revière,* 1r. livrasion, p. 238.

We saw this clover cultivated at Hohenheim, near Stuttgardt. M. de Dombarle had favoured M. Schwertz (the celebrated author of the Agriculture of Flanders) with a *quantity sufficient* to sow about two acres.

It was sown upon a stiff red clay in the middle of April; the spring was excessively dry, and yet it was fit for cutting six weeks after it had been sown, and a most luxuriant crop it was. M. Schwertz intends to cultivate it extensively, since, soiling being one of the principal dependencies of the estate for manure, it enters most admirably into the rotation of green crops, which are as follows:—

Flesh coloured clover, sown in September fit to cut in April; then comes the first cut of lucern—the first cut of clover—the second cut of lucern: the tares and peas sown in spring—the second cut of clover—the third of lucern—cabbages, turnips, potatoes and dry food. This is the system pursued at Hohenheim. The culture of the flesh-coloured clover allows M. Schwertz to commence his green fodder full three weeks or a month before his neighbours.

We are ourselves satisfied of its importance, and hope by thus making known the result of our observations to cause another valuable fodder to be added to those already so happily cultivated in Great Britain.

We are, &c.

London, Nov. 8, 1828. R. & D.

LIVE OAK.

This is one of the most valuable productions of our territory. In hardness, solidity, capacity of resistance and durability, it excels the best white oak. The teak wood of the East Indies, has been much vaunted for its excellence in ship building; but the live oak is preferred; and it has been said that these were the only two kinds of timber in the world fit for building ships of war. So great, however, has been the demand for live oak timber in the United States, and so slow is the vegetation of the tree, that several years since, Michaux, in his work upon the forest trees of North America, predicted its disappearance from the United States within half a century. After that period, he says it may exist, not as a forest tree, but as a shrub, like the *Quercus Ilex,* an analogous European species, formerly growing in the southern borders of France and in Spain and Italy, but now only met with of an humble and dwarfish size. The tree is said to thrive well when cultivated. The Pensacola Gazette mentions, that the live oak trees which have been planted in the vicinity of gentlemen's seats in Georgia and South Carolina, or have been suffered to remain in the fields, are much more beautiful than those found in the forests. Some noble avenues of those trees have been formed on the sea coast in those states. Those of Col. Tatnall are mentioned, for which large sums have been offered, but were refused by the proprietor, who would not consent that the trees planted by his ancestor should be cut down.

The difficulty of procuring live oak timber, which has now become so great, that it is difficult to procure enough for the frame of one of our smallest ships of war without enormous expense, has led our government to take measures for its cultivation and preservation. The plan recommended and adopted for this object, and the mode in which it has been carried into execution, is described in the following article from the Pensacola Gazette:

We have made some inquiries respecting the cultivation of live oak on Deer Point, opposite this town. The lands purchased from Gen. Call, Judge Brackenridge, Col. Fenwick, and Col. White, together with those reserved by government, constitute a body of twenty or thirty thousand acres, bounded by Yellow water. Bay on one side, and the Sound of St. Rosa on the other. The land immediately at the point, about four thousand acres, is all live oak hammock, with a border of a thrifty young growth along the water, from one to three hundred yards wide. But the interior, although well set with oak is shrubby, having been subjected to repeated fires from the pine woods. Yet from the similarity of the soil and general growth, there is little doubt that it is as well adapted to the purpose as the border. This border, or selvage, is about ten miles in circuit, and besides the young growth, contains a number of large trees, fit for immediate use. Much of this valuable timber has been cut away at former periods for the construction of vessels. In the year 1801, a Spanish 44, the Panzacolenea was built at Navy Cove from the timber procured at the Point.

We are informed Judge Brackenridge was requested to suggest to the government a plan for the management of the tract of land reserved, and for the preservation of the live oak generally. That gentleman accordingly communicated one, which was approved, and ordered to be carried into execution. The outline was as follows:

1. To clear away all the foreign growth from

among the young and thrifty live oaks, so as to give them the entire possession of the ground; to prune them of all dead limbs, and give them sufficient space to expand.

2. To cut down the large full grown trees, fit for use, and secure the timber under sheds at the Navy Yard; and those likely still to improve, to be cleared and pruned.

3. To make experiments of planting out the young trees, in the open grassy pine woods adjoining the hammock, in places suited to the purpose, making roads around them to keep off the fires.

About two months ago, the Judge received instructions to appoint an overseer, to hire twenty hands for one year, and to commence operations according to the foregoing plan. He accordingly commences immediately, and the work under the direction of Mr. Davis has been carried on with the most flattering success.

The trees cleared out already form beautiful groves, and are as carefully pruned as those of an orchard. They are divided into four classes, beginning with the youngest, which are under two inches in diameter, and are called nursery trees; the second class, are between two and six inches in diameter, and generally from fifteen to thirty feet in height; the third are from six inches to a sufficient size for immediate use; the fourth consist of full grown trees.

Of the first class immense numbers have been cleared and pruned; of the second, about *eight thousond;* and of the third, about *two thousand* have been cleared, allowing them all sufficient space to expand. At a moderate estimate, the Judge thinks the second class, those between two and six inches, will be fit for use in twenty years; those of the third class, six inches and upwards, on an average in ten years. As the sizes vary, some will arrive at maturity long before others. The ground will hold a greater number than would stand erect, if full grown.

Of the second and third classes, the Judge thinks, at a low estimate, be will be able to clear out from twenty to thirty thousand this year. The growth, which has been cut away, consists of hickory, water oak, and cedar pine. The live oak, like the chestnut and locust, springs from the roots and stump of the mother plant, so that by taking proper pains, and by confining the operation to those spots where they have been planted by nature, the danger of the destruction of this valuable timber may be prevented. Still the forming of nurseries from the acorn is worth the experiment; and although the period before the acorns will become trees fit for use, must be great when compared with the duration of human life, yet it may be short in comparison with the age of a nation.

England is only now beginning to use those trees which were planted seventy or eighty years ago. The tree, however, which has the benefit of an ancient and extended root, is of very rapid growth. The live oaks, preserved in Judge Brackenridge's door yard have, in five years, increased from the diameter of four inches to eight.

If the experiment at Deer Point should equal present expectation, the plan can be put in operation on a more extended scale, at different places along the coast of Florida, Georgia, and South Carolina, and the several islands along their coasts, which are now generally well set with this valuable growth. According to the reports of the Commissioners, who have been employed in examining and selecting live oak along our coast, there are several millions of live oak trees on the Sound of St. Rosa and the Bay of Choctawhatchie; and all so situated as to have the advantage of navigable water to our Navy Yard. If five millions of trees can be preserved from trespassers and fires, they will soon become of incalculable benefit for naval purposes.

Establishments may be made where our superannuated and disabled seamen may be profitably employed in a light, healthy labour, at the same time that they are taken care of, instead of being turned adrift in old age, or when no longer able to encounter the hardships of the sea.

(From the Baltimore Patriot.)

THE MULE.

Mr. Munroe:—On reading the reports of the several committees appointed to award the premiums at the last Cattle Show near Baltimore, I observe that the committee on Asses and Mules express a regret that neither jennies nor mules were exhibited for premiums. I have hastily thrown together my ideas of the valuable properties of the mule for agricultural employment. If you think them worthy of an insertion in your useful and widely circulating paper, you will please to insert them, and oblige A Farmer.

The Mule, when compared with the horse for the general purposes of agriculture (in Maryland,) has certainly many advantages. First, they are much longer lived, I think I am justified in saying double, when put to hard service and exposed. The late Col. John E. Howard had a pair that worked thirty years, at the expiration of which time he sold them to a carter in Baltimore, then in good health, and they performed well for many years after. There are several mules now in Baltimore county that were twenty-five years old last spring; some on the farm of George Harryman, Esq., and some are on the farm of Micajah Merryman, Esq. They are now in good order and perform well; there are many that are twenty years old, and have been at hard work eighteen years; two of that age were sold at public sale but a few weeks ago at $53 each. Besides these, there are many that have been at hard work for from twelve to fifteen years, that would now sell for $100 each. Secondly, the great saving of food, which on a fair calculation I consider to be one third, or in other words, six ears of corn is as great a feed for a mule as eight for a horse; in confirmation of this, I have the opinion of Mr. Green, late manager at Hampton, and many others in Baltimore county, who have long used the mule in agricultural pursuits. Upon this principle, nine pounds of chopped rye for a mule, is equal to twelve pounds for a horse. Agreeably to this conclusion, I will attempt to show what is saved in the article of food alone. If chopped rye be used the saving will be three pounds per day, and in a year 1095 lbs.; calculating chopped rye at one dollar per hundred, the saving in a year will be $10 95

Hay in proportion at $5 per ton,	2 43
Making a saving in one year of	$13 38

and in ten years, $133 80. Thus it appears that in ten years, which may with propriety be considered far short of the average time of a mule's service, it will save its first cost in the article of food alone, and be a good mule then. And furthermore, they are not liable to so many diseases which frequently afflict horses, viz: the *colt's ailment*, the *glanders, heaves, yellow-water*, and colic, and they seldom are afflicted with the spavins, ringbone or bots, and they will not founder. Admitting what I have stated to be correct, there can be no doubt of the superior advantage to be derived from the employment of the mule in agricultural pursuits instead of the horse. And the question naturally arises, how are we to procure a stock of good mules. I will give my opinion as brief as possible: do away the prejudice which prevails in Maryland, and in almost every place where mules have not been bred, "that a mare will bring but one mule, and that after having had a mule she will never have a colt." However absurd this may appear to gentlemen of general information, it is nevertheless cherished by many persons who have not made the experiment, and is the principal reason why those who have kept jacks in Maryland have not found it profitable. As nothing but actual experiment will overcome this prejudice, I would suggest the propriety of offering a premium of two dollars for every mule two years old raised in Maryland, and ten dollars for the best two years old mule, and ten dollars for the jack which should sire the most foals in a season, the number to exceed twenty. Should this method be adopted and continued three years, I think much good would result from it; and after that I am confident that the farmers would find a sufficient inducement to raise mules instead of horses; and I am confident from the large mares of Maryland and Pennsylvania, a larger and better stock of mules can be produced than was ever raised in France or Spain.

(From the Richmond Compiler.)

TOBACCO TRADE.

Copy of a letter to a mercantile house in this city, received by the Grecian at New York, dated

Liverpool, *4th March*, 1829.

"*Sir*,—We beg to hand you the annexed copy of a letter from Mr. Huskisson, stating that the proposed additional duty on Strips is, for the present, abandoned; from which it might be fairly argued, that the project would not be revived this session of parliament, had we not before us a case to the contrary, in the article of sugar last year. It may be remarked, however, from what passed between our first deputation and the ministers, upon the subject of the 10th October, being a sufficient notice of the intentions of government that should they again bring forward the measure, either at the close of the present or during the next session, they would then probably attach the duty to all imported after the 10th October last or the 5th April next. Under these circumstances, we leave it with you to judge whether it would be safe to put up any Strips for the approaching season.—It remains to be seen what effect this news may have upon our market, for as yet no sales have taken place."

(Copy.)

Richmond Terrace, 2d *March*, 1829.

"*Sir*,—I have just received from the Chancellor of the Exchequer in time to save the post, the satisfactory intimation, that upon a due consideration of the various and conflicting representations which have been made to him by the different parties interested in the tobacco trade, and of the difficulties which would result from the proposed addition of three pence per pound on stemmed tobacco, he has made up his mind to relinquish his intention of recommending for the present, any alteration in the existing rate of duty. You are requested to communicate this information without delay, to all the parties interested in the trade.

(Signed) W. HUSKISSON."

(From the New England Farmer.)

HEMP.

Extroct of a Letter from F. C. Tucker, of New York, dated Dec. 7, 1824.

"The following statement is intended to exhibit the comparative strength of Connecticut river and Russia hemp, made into ropes of 44 inches in circumference, based upon the result of an experiment made upon ropes of 24 inches in circumference

A rope of 24 inches, made of Connecticut river hemp, broke with - -	3,209 lbs.
One of the same size, made of Russia hemp, broke with - - - -	3,118
Difference in favour of Connecticut river hemp, - - - - -	91

A rope 4½ inches in circumference made of Connecticut river hemp, would require to break it, - - - - - -	12,836 lbs.
And a rope of the same size, made of Russia hemp, would require -	12,472
Difference in favour of Connecticut river hemp, - - - - - - -	364

This difference would allow a deduction of full one-eighth of an inch from the size of the rope made of Connecticut river hemp, and it still would have equal strength to the 4½ inch rope made of Russia hemp.

A 4½ inch rope, 120 fathoms, weighs 560 lbs. at 10 cents, - - - - - -	$56 00
A 4 3-8 inch rope, 120 fathoms, weighs 532 lbs. at 10 cents, - - - - - -	53 20
Difference - - - - - -	2 80

or equal to half a cent per lb."

HORTICULTURE.

(From the Vine-Dresser's Manual.)

THE ART OF MAKING WINE.

(*Continued from page* 44.)

Of the Wine Vessels, Vats, &c.

The casks, like the vats, should be made ready before the vintage. If they are new, the wood employed in their construction will have an astringency and bitterness that may be imparted to the wine; this serious evil is prevented by soaking them well with cold water, then with hot water in which peach leaves have been infused, and finally with salt and water. Each time the cask must be well rolled and shaken, and the different waters left in it long enough to penetrate the substance of the wood and draw out the hurtful principle. After the salt and water is emptied out, two pints or a gallon of fermenting must, brought to boiling heat, must be thrown in, and the cask bunged and shaken; after which the must is allowed to run out. But some vine-dressers, in place of the above operations, only rinse well with hot wine.

If the casks are old and have been used, the head is taken out, and the gravel, or coat of tartar that skirts the inner side, is scraped off with a sharp instrument; after which the whole is thoroughly rinsed with warm water, or hot must, or hot wine. If the casks have contracted any bad taste; if they have been touched with mould, they must be burnt; nothing can ever be done to conceal or repair these faults, save transiently; they soon reappear and spoil the wine. To prevent such accidents, the casks, as soon as empty, must be well drained and turned over on the side, and an inch square of brimstone match burned in at the bunghole; then bunged as tight as possible, and stowed away in a dry place. Before using a cask it should be ascertained that it has not soured, which can be found out by introducing a burning match, or a piece of lighted paper; if they go out, it requires purifying. It should be turned down, the bung open, over running water, or the sandy floor of the cellar, for four-and-twenty hours, then rinsed and sulphured by burning a match in it. The hoops should be examined, to see that none are started or in bad order; water should be poured in to find whether the staves are tight. If they are loose, water must be put in, and the cask allowed to stand awhile on one side, then turned to the other, until there is no leaking; it must then be drained.

Casks are mostly made of oak; some districts prefer them of beech wood, because, say they, the wine ripens better in such, and takes a pleasant taste. They vary greatly in size, but more generally are four feet 3 inches long; of cylindrical form, slightly bulging at the middle, like an egg with two ends squared off. The invention of them is attributed to the people of the Alps,* who varnished them with wax inside, and outside with pitch or rosin. There are inconveniences annexed to them, such as the qualities of the wood which are soluble in the wine; the shrinking or swelling of the staves according to the state of the weather, and thus giving access to the external air and allowing internal gases to escape from the liquor. They go in different places by the several names of puncheons, casks, pipes, butts, barrels; when larger, they are termed hogsheads, and when of enormous size they are called tuns. The latter are excellent for hastening the ripening of wine; a large quantity of wine together, sooner takes the characters of age than small portions, kept separately.

It has been frequently recommended, in place of casks to use potter's vessels, glazed like the high glazed pottery of the ancients. Such vessels, have undoubtedly, the advantage of preserving a more equal temperature; but they are all more or less porous, and, in the long run, may change the wine. We might, like the Romans, remedy this porosity by coating them with wax inside and pitch outwards, or else with a cement of lime; &c. but wax will sour the wine, and lime, as I have already elsewhere stated, may add to it disagreeable properties. But worse than this,—these vessels are awkward to be moved, and very brittle, not permitting the multiplied handlings that casks receive without injury.

Of the Duration of the Fermentative Process.

As yet there is no other rule than custom to determine the moment for drawing off from the vat. The rule with some, is when the wine drawn off has no bubbles in it, nor froth upon it; with others, they work a stick around in the liquid and see whether it wheels, as it is called, or makes a circle of foam; others judge by the deep colour: others by the coldness of the vat; others again by the mild and sweet taste.

As a principle, 1st, if the vat is very large and warm the must should remain in it but a short time; 2d, if the saccharine matter abounds, and the must is thick, and the temperature, low, the fermentation will be longer. 3d, A defective fermentation in the vat, may, in a manner, be remedied, in the casks, by closing them sooner; 4th, but there are no means of curing a wine that has overpast the due limit and become tart, or musty, or spoiled with carbonic acid, so as to restore it to its proper qualities.

The wines of St. Basle, Verzy, Versenay, and Mailly (de la Marne) known for their fine colour, great delicacy, high raciness and fragrance, remain only six hours in the vat. The most superior wines of the departments of Saone and Loire Cote-d'or and l'Yonne, and especially those from the Vinegrounds of Pouilly, Meursault, Tonnerre and Chablis, cannot stand the vat longer than from six to ten hours. The wine from Volney, which is the lightest, most delicate and agreeable of all the wines of the Hills of Beaune, or even of all France, is left in the vat no more than six hours. But there are some wines not yet perfect after nine days of fermentation.

The length of time required for the vat is sometimes only important on account of the colour; as in the case of Pomard wine for instance. But if the pressing crushed the whole of the grapes sufficiently, so that the colouring matter would mingle with the must without our having to depend on the brisk or violent fermentation to extract it, it might, I think, be found, that the stem and the stone are both better cleared away than left in the vat, notwithstanding their apparent advantages in some cases. This idea is merely hazarded to elicit experiments by well informed vine-dressers. Meanwhile let us look to the matter in hand.

The proper time for drawing off is when the transformation to wine is complete; but, the sinking back of the chaplet, or sheet of scum, though it shows that the strongest fermentation is over, yet, as there are several degrees of change to be undergone by the liquid beneath, before it falls as low as it should go, it remains to be seen how low it must have sunk to afford a sure indication to judge of the completion of the wine. The motion of the wine, or its limpidity and calmness when a glass is drawn off, are by no means signs worth resting on.

Colour and taste would be preferable indications, but taste and smell are senses so differently enjoyed by different individuals, and of the infinite shades of colour it is so difficult to render a just idea, that neither can be looked to. As the heat developed by fermentation depends on the sugar and spirit in combination, it is idle to refer to what is so perpetually variable. Indeed, vats will often have reached their maximum of heat at the end of twenty-one or sometimes ten hours, and the wine not be complete till twenty or twenty-six hours after. The thermometer alone is therefore no infallible guide of vinification.

The essential point is, then, to find a fixed, invariable method, independent of circumstances, and at the same time capable of application by intellects of the meanest grades, so that not the dullest workman need fail to comprehend it. My late friend *Belfroy de Beauvoir* had turned his attention to this subject, and from him I have received the following account of his observations.

"I have long busied myself about the regulation of the drawing off. I have thought, that if it could be rated by some simple, economical, mechanical process, the art of making wine would be quite a household affair, no matter what the climate, soil, or quality of the grape, or all the other accessaries which often make the usual indications swerve from their exactness.

"My idea was to find a measurement of the degrees of fermentation from the first sensible movement until the complete vinification, that is to say, a scale affected by the first sensible repulsion of solids from the fluid, which shows that the ferment is begun, until the equally sensible retrogression or reaction, showing its decrease has taken place; for it seemed to me that there must be a fixed relative proportion between the expansion of the fermenting must, and its subsidence: and I thought I could deduce from what I saw, that the drawing off should be practised as soon as the film or scum had settled downwards. I therefore marked degrees on a yard stick, placed, upright in the middle of the vat, and I watched the ascension and fall; the wine was perfect at the time proposed. But in dry and hot years, when the grape is very ripe and contains more fire than sugar, if the wine is left until the scum has sunk, it is hard, heady, rough and fiery. In rainy years, when the grape is full of water, the wine, at that degree, is not perfect; in seasons that are dry without being too hot, seasons generally remarkable for the abundance of sugar in the fruit, the moment the retrogression of the head as accomplished, is the exact time for drawing off the wine.

"With the help of these facts, and knowing that the same principles, mere chemical combinations, were at work to effect the sinking, that accomplished the expulsion and ascent of the chaplet or head, I deemed that *the time*, be it greater or less, required in the ascent and in the fall were proportioned to each other, and by that, some lights might be given. I therefore tried it, whether, allowing as long an interval from the stagnation of the head, to the drawing off, as had occurred between the crushing of the fruit and the first degree of sensible ascension, would allow time for the wine to be completed, in cases where it was not finished at the settling of the head. The first year I was completely successful. The next season had been very different; and I was somewhat behind hand in the wine; the next season, the wine was a little overdone. As my regulator was not more than an inch thick, and simply thrust into the vat without being firmly fixed, I attributed these different results to some displacing, or my own careless inaccuracy. The next season, I took a piece of poplar plank, five inches broad, two thirds of an inch thick, and nearly as long as would reach across the vat. Through the middle of it I passed the yard-stick, fastened down; and the plank, being perfectly flat and extremely light, would work up and down with perfect facility following the swell or decline of the scum. This method was more exact, and I have found it of use for three years past. I intend to perfect it much more; by combining the strength of the fluid and the heat of the vat with my other calculations, and making the matter so clear, that the most unlettered farmer, may seize with half an eye, the proper minute for drawing off, no matter what the previous or attendant circumstances."—Such was his statement; but exile and death have prevented him from keeping his word.

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* Pliny. Hist. Nat. lib. xiv. cap. 21.

To draw off, the tap of the vat is turned and the liquor removed to the cask in measures made for the purpose. But the first thing to be done is to remove the scum which has soured by exposure to the air, with the utmost precaution, by means of a wooden spadille. For should this film turn under, the whole vat of wine will be good for nothing. Wines of peculiar excellence are drawn off by funnels and syphons that prevent the open air from striking the wine, as it does in the common method, both when it falls into the measure, and again when it is emptied into the cask.

(From the New England Farmer.)

Best Time for Destroying Caterpillars.

Mr. Editor,—The season for the appearance of the caterpillar, so unsightly, and, unmolested, so injurious to fruit trees, reminds me of the best time for their destruction. By experience, I have found them uniformly in their nests at mid-day, when the sun shines clear and warm, until more than half grown. At this time they may be rolled in their nest with ease, as far as they can be reached by the aid of a ladder, or otherwise, and cast to the ground, where they are easily destroyed. This may be generally known; if so, no harm is done; otherwise you will give it such notice as you may think proper. One of your Subscribers.

April, 1829.

LADIES' DEPARTMENT.

(From an unpublished Souvenir.)

THE LOOKING-GLASS.

I once had a looking glass, a very pretty one too, for use at my toilet of a morning, which had the singular property of reflecting every object in a more beautiful and perfect form than the original warranted. This I did not know for a long time; but supposed, when reaping my daily crop, that the full, fair countenance, and smooth, beautiful skin I saw in my glass, formed a "picture true to nature." The frequent contemplation of my countenance in this glass, had impressed upon my mind the idea, that I was one of the "best looking" young men in Baltimore; and with this impression, when on a visit, or when having merely "dropt in" at a friend or a neighbour's house, I always found some pretext for taking a peep at my pretty self in the looking-glass; the consequence of which was, on every occasion, the mortification to find a pale, bilious, wrinkled, lanthorn jawed countenance reflected—My uniform exclamation on those occasions was, "Why, my dear sir, or madam, or miss, as the case might be, your mirror is hideously false! You have been taken in—villainously taken in!" The usual reply was, "Ah! why I thought it was pretty correct—I never discovered any false reflections in it." In this way I found that all the looking-glasses in the circle of my acquaintance were false—"hideously false," and that mine—my pretty little one, of which I boasted on all those occasions, as the very pink of perfect mirrors, was the only true reflector in Baltimore.

One day, after having denounced her glass and its maker, as the most monstrous reflector and impostor in the Union, and mentioning mine as the best, Miss Emma, my very particular female friend, requested me to bring my glass and let her see it. Glad of an opportunity of showing my paragon mirror, I went home, took a good look in it, to make sure of my triumph, wrapped it in my best bandanna, and carried it to Miss Emma's. She looked into it, and observed that "it was a very good glass, but that she did not discover any thing *very* extraordinary in it," at the same time kindly and carelessly wiping the dust off its face with her white cambric. "Nothing extraordinary! Why my dear Miss," said I, "hold it by the side of your own and look in each alternately." She did so, and again observed, "Indeed, my dear sir, I can discover nothing very extraordinary in it." I snatched the glass from her hand, rather rudely and ungallantly, I confess, and held it up by the side of the other, determined to point out the perfections of the one, and the errors of the other. I looked in her's, and saw the same lanthorn-jawed countenance before described, and directed the attention of my fair friend towards it. "See," said I, "how wrinkly and sallow and hollow cheeked it makes me appear. Now look in *my* glass,—my pretty paragon,—the only true one in Baltimore, and see me as I am." We both looked at the same time—the same picture presented itself that I had seen in the other—in all others! I felt sick at the heart, mortified—aye, mortified; for the same glass presented me the portrait of my fair friend, in all its blooming loveliness, just as the original stood beside me; and I plainly saw an arch smile flickering behind the rose and lily leaves of her countenance, seemingly playing hide-and-seek with Pity, who was looking out of the "windows of her soul," compassionately upon my distress. "What can this mean," said I, assuming a composure which I did not feel, "am I, indeed, so ugly; has my glass deceived me so long, and how the devil has it done so?" "Be composed, my dear sir," said Emma, "I think I can explain all to your satisfaction. You have kept this little glass in your room for years, without brushing the fine dust, that imperceptibly accumulated, from its surface, which has had the same effect on your countenance, that white powder has on a lady's face—obscured the wrinkles and yellow tinge, given the cheeks the appearance of fulness, and imposed on nature a picture nature never knew. And I doubt whether it has ever shown you even one of these beautiful silver hairs," she continued, at the same time plucking one from my locks and showing it to me, with an arch smile. I looked at the hair and at my glass with consternation—stupified—dumb as an oyster, for some time. At length, unable longer to bear the mortification of pride and feather-clipping of vanity, thus, I raised the glass, and was about wreaking my vengeance on the innocent cause of my humbled spirit by dashing it to atoms, when Miss Emma caught my hand, saying "Hold, my friend, save the glass; it has done you and me good service. This little incident conveys a great moral lesson to us both. It teaches us, when friends are *very kind*, to wipe the dust of deceitfulness from their faces, before we confide in them; and in all things before we make up an opinion, to see if the dust of prejudice hath obscured our minds, and if so, to wipe it off. But the best of the lesson is, it teaches us daily to wipe from our minds, as I did with my 'kerchief from this little moralist, the dust of *thoughtlessness*, that imperceptibly accumulates, makes us think ourselves more perfect than our neighbours, and prevents us from "*seeing ourselves as others see us.*" Pythias.

Baltimore, May, 1827.

SONG.

There's fragrance in the vernal flower,
And music in the grove;
There's pleasure in the sylvan bower,
But bliss is found in love;
In youthful, bashful, blushing love,
That steals the crystal cup,
And with red lips, and trembling sips
The blissful nectar up.

There's glory in the battle-field,
And joy in civic fame;
But these the prize of bliss must yield,
In life's eventful game,
To youthful, bashful, blushing love,
Who comes a timid guest,
And ere she wakes, his pillow makes
On beauty's throbbing breast.

There's pleasure in the mazy dance,
And at the feast delight;
And gold will all our joys enhance,
And make our honours bright;
But youthful, bashful, blushing love,
Comes with his fervent kiss;
His suit reveals, sighs, smiles, and seals
Our only earthly bliss. Pythias.

Baltimore, May, 1827.

SPORTING OLIO.

Pedigrees of Celebrated Horses.

MASK

Was bred by Gen. Spotswood, and was got by Shark out of his imported mare Virago. Shark was got by Mask, sire of Capt. O'Kelley's famous Eclipse; his dam by Shafto's Snap, his grandam by Marlborough, out of a natural Barb mare; Shark's dam was also the dam of Mr. Swensen's famous horse that won the great subscription, at Nottingham, in 1777, beating Lord Grosvenor's Pot-8-os, Flea-Catcher, Rasselas, &c., when fifteen horses started. Virago, the dam of Mask, was purchased by Smith, Young and Hyde, of Mr. Tattersall, who purchased her at the Prince of Wales' sale. She was bred by Mr. Penton, was got by Star out of the noted mare Virago, which mare was got by Mr. Penton's Arabian out of the daughter of Old Crab.

Orange, Feb. 19, 1799. Robt. Young.

SIR JOHN MOORE,

Was bred by Capt. Richard Baylor; was gotten by Young Bedford, his dam by Melzar, his grandam was the famous running mare Betsey Baker; she was got by the imported horse Medley; his g. grandam by Pilgrim; Pilgrim by Sampson—by Greyhound; his g. g. grandam by Rockingham; Rockingham by —— out of a full bred mare of Lightfoot's, of York, Virginia. Young Bedford was bred by Mr. John Page, of Frederick county, Virginia; he was got by the imported horse Bedford; his dam was bred by the late Secretary Nelson; her sire was Harris' Eclipse; her dam was got by General Nelson's horse Sloe, out of the finest Jolly Roger mare, perhaps, that was ever bred in this country, which was an immediate descendant of a Barb. Sloe was the sire of the celebrated running horse called the Black, formerly the property of Colonel Larkin Smith, of King and Queen county, and afterwards purchased by Mr. Wm. Snigers, of Frederick county, Virginia.

March 8, 1823. James Kerney, Jr.

STIRLING,

Was bred by a gentleman of that name, and sold, when a foal, to Mr. Broadhurst. He was got by Volunteer, his dam by Highflyer, grandam by Young Cade, great grandam Childerkin by Second, out of the dam of Old Snap; she was got by Fox, her dam Gipsy by Bay Bolton, grandam by the Duke of Newcastle's Turk—Byerly Turk, Taffolet Barb, Place's White Turk, Natural Barb Mare.

SOUTHERN ECLIPSE.

He was gotten by Governor Sprigg's Northampton, (which was by Oscar, and Oscar by Gabriel out of a Medley mare, and Gabriel by Lord Ossory's Dorimont,) his dam by the late Mr. Bond's First Consul, (which was by the Flag of Truce out of a Messenger mare,) his grandam by Grey Diomed, which was by Old Medley; his great grandam Old Ebony by Othello; his g. g. grandam the imported Selima, by the Godolphin Arabian.

William Thornton.

(From the New England Farmer.)

BOTTS IN HORSES.

Mr. Editor—Among the many good and useful things that are discovered and by you published, it would be strange if there were not some hardly worth publishing, and some worse than nothing. Among the last, I think may be numbered many of the recipes for killing botts in horses. Having from my youth been fond of a good horse, I have paid much attention to the animal; and have long since been fully convinced that it was folly to wage open war with botts in a horse's stomach, believing that there has nothing yet been discovered that will kill them in the stomach without killing the horse. I should almost as soon think of setting fire to my barn to kill the rats and mice. Many things, which you have heretofore published, I think good, such as bleeding to prevent inflammation. Yet, I think, the most sure way is to keep the horse free from the nits.

Some years since I had a very valuable mare that was attacked with botts, and to appearance, very far gone. I set the following trap for them, which more than answered my expectations. I took of bees' wax, mutton tallow, and loaf sugar, each eight ounces, put it into one quart of warm milk, and warmed until all was melted. Then put it into a bottle, and gave it just before the wax, &c. began to harden. About two hours after gave physic. The effect was that the botts were discharged in large numbers, each piece of wax having from one to six or eight sticking to it, some by the head, but most by their legs or hooks. Yours, Z.

MISCELLANEOUS.

CATHOLIC DISABILITIES.

At a time when the whole population of Great Britain and America,—nay, of every Catholic and every Protestant country,—are more or less excited on the subject of Catholic Emancipation, it may be interesting to enquire what are the disabilities under which so large a portion of his majesty's subjects are laboring; and from which they have been praying almost for centuries, to be released? We shall state them as they stood in 1812, since which time, we believe, few or no changes have been made.

A Catholic Peer cannot sit and vote in the House of Peers.

Nor a Catholic Commoner in the House of Commons.

A Catholic Priest cannot celebrate marriage between two Protestants, or between a Protestant and Catholic, unless already married by a Protestant, under penalty of £500.

A Catholic cannot be Lord High Chancellor, or Keeper or Commissioner of the Great Seal.

Nor Master or Keeper of the Rolls.

Nor a Justice of the King's Bench, or the Common Pleas.

Nor a Baron of the Exchequer.

Nor Attorney or Solicitor General.

Nor King's Sergeant at Law.

Nor a Member of the King's Council.

Nor a Master in Chancery.

Nor Chairman of Sessions for the county of Dublin.

Nor Counsel to the Commissioners of Revenue.

Nor the Recorder of a City or Town.

Nor an Advocate in Spiritual Courts.

Nor a Sheriff of a County, City or Town.

Nor Sub-Sheriff.

He cannot be Lord Lieutenant, Lord Deputy, or other Governor of Ireland.

Lord High Treasurer, or Lord of Treasury.

Governor of a County, or Privy Counsellor.

Post Master General, Chancellor of the Exchequer, or Secretary of State.

Vice-Treasurer, Teller or Cashier of the Exchequer.

Keeper of the Privy Seal, or Auditor General.

Provost or Fellow of Dublin University.

Lord Mayor or Alderman of a corporate city or town.

He cannot be a member of a Parish Vestry.

Nor bequeath any sum of money, or any lands, for the maintenance of a clergyman, the support of a Chapel or School.

In corporate towns, Catholics are uniformly excluded from Grand Juries.

It would perhaps be tedious to recite the whole list of offices of trust, emolument, or dignity, from which the Catholics are excluded, either by the express letter of the law, or by the application of oaths and tests. Suffice it to say, that the learned author of Vindiciæ Hibernicæ computes the number of stations in Ireland alone, which these offices embrace, at *three thousand, seven hundred and forty-eight!*

It is not strange that a people groaning under such oppression should be importunate; that they should have followed up their petitions year after year, and generation after generation; and that between hope and fear, they should sometimes have overstepped the bounds of order and law. If England would heal the wound which weakens the body politic; if she would engage the real sympathies of Ireland in her behalf, and make one nation of lands which "abhor each other," the course is a plain one, Ireland must be admitted to the privileges of Englishmen. We know there are some chiefly connected with the established church, who forebode the most disastrous consequences, should Catholic Emancipation be granted. But why should they fear? In the United States the experiment has been fairly tried, of granting a free and full toleration to all religion; and the result is such as to convince every American of the safety and wisdom of the principle. Make men happy, and they will be loyal; oppress them and their loyalty will be only a cloak to conceal the hand of an assassin.

[*New York Journal of Commerce.*

No trees bear fruit in autumn unless they blossom in the spring.

The Italian Theatre in Lisbon.

In the best days of the Constitution, when it was the rage to go to the San Carlos at Lisbon to call for the Constitutional hymn and *Rey! Rey!* (God save the King) and to make extempore speeches from the pit and boxes, the manager of the theatre, a coffee-house keeper, was able to pay salaries of 10*l.* and 15*l.* English, per week, to each of four really first-rate singers, who in this country would have had each 1500*l.* to 2000*l.* for the season; and about 2*l.* to 3*l.* per week to the second-rate actors and actresses, going down to a crusada novo (2*s.* 4*d.*) per night to the figurantes and chorus-singers. In those days, however, the instrumental part of the establishment was on a much more economical scale. Two-thirds of the musicians were Spaniards; some of them noblemen, who were glad to earn a subsistence by playing in the orchestra for a crusada novo a-night, and the Portuguese musicians were, from that circumstance, obliged to lower their demands. Now, however, things are altered. The salaries of the singers have been reduced one half, and the refuge Spaniards being in prison, the native fiddlers have had a strike for wages, and compelled the manager to double the amount of their remuneration. [*London pa.*

Vital Parts of a Tree.

The innermost layers of the bark, and the outermost layers of the wood, are the most vital parts of the stem of a tree, and those on the healthy condition of which the health of the whole plant most immediately depends.—Hence many trees continue to exist for centuries when the central part is completely decayed, or even not present, so that the trunk is a hollow cylinder sometimes of most spacious dimensions. [*Quar. Jour. of Agri.*

A late Irish newspaper contains the following paragraph:—"On Thursday his Excellency the Lord Lieutenant visited Carton, where he shot in the morning, and afterwards spent the day with the Duke of Leinster."

RECIPES.

TO TAKE OUT BRUISES IN FURNITURE.

Wet the piece well with warm water, then take some brown paper five or six times doubled, and well soaked in water, lay it on the place, apply on that a hot flat-iron till the moisture is evaporated, and if the bruise is not gone, repeat the same; you will find after two or three applications, the dent or bruise is raised level with the surface; or, if the bruise is small, soak it well with warm water, and apply a red hot poker very near the surface, keeping it continually wetted, and you will soon find the indentation vanished.

CURE FOR WEAK AND WEEPING EYES.

Make a strong decoction of camomile, boiled in sweet cow's milk; with this, let the patient's eyes be bathed several times a day, as warm as can be suffered without uneasiness. Persons almost blind have been cured by persevering in the use of this prescription. It is proper, however, to observe, that frequently five or six weeks bathing of the eyes is necessary. [*Phila. Sentinel.*

POTATO PUDDING.

Few people are aware how delicious a pudding can be made from the farina of potato, or potato starch. The following are the ingredients:

To one quart of boiled milk, add, gradually, as in making hasty pudding, a quarter of a pound of potato flour, well pulverized; a quarter of a pound of sugar and a little butter; when cold, add three eggs, and bake it half an hour.

THE FARMER.

BALTIMORE, FRIDAY, MAY 1, 1829.

☞ The many respectable graziers and victuallers who read our journal shall be entertained, at an early leisure moment, with some curious particulars connected with the last grand *Smithfield Club Cattle Show* in London. In the mean time we submit the dead weights of some of the prize stock—it will be seen that several of the sheep weighed more than forty pounds to the quarter.

Dead Weights of Stock exhibited at the Smithfield Club Cattle Show, viz.

		lbs.
CLASS I.—	James Senior, Esq. prize ox . .	1748
CLASS II.—	James Senior, Esq. first prize ox	1638
	Lord Althorp's second prize ox .	1684
	Richard Kitelee, Esq. ox . .	1704
CLASS III.—	Richard Kitelee, Esq. prize ox .	1474
	James Senior, Esq. ox . .	1456
CLASS IV.—	Sir George Crewe, Bart. ox .	862
CLASS V.—	Marquis of Exeter's cow . :	1128
	Pindar Simpson, Esq. cow .	1235
	—— Edmund, Esq. cow . .	1280
CLASS VII.—	Lord Althorp's first prize sheep	139 133 132
	Duke of Rutland's second prize sheep	150 156 151
CLASS VIII.—	Mr. Chamberlain's prize sheep	173 166 175
	Mr. Joseph Bull's sheep . .	169 147
	Mr. Henry Haine's sheep . .	170 179 161
CLASS IX.—	1st, John Elman, Esq. prize sheep	119
	Lord Gage's sheep . . .	125 108 99
	Mr. H. Boy's sheep . . .	119 119 117
CLASS X.—	One of Mr. Grantham's prize sheep	144
	Two of the Duke of Richmond's sheep	136 119
	Mr. H. Boy's sheep . . .	132 137 129
	Lord Gage's sheep . . .	141 152 119

☞ *Interesting to American cultivators of tobacco.*—At a late annual meeting of the old "Bath and West of England Society," a Mr. Hanning brought forward a motion respecting the *cultivation of tobacco in England*. He said the cultivation of that plant in England was at present prohibited by a law which was passed for the protection of the North American colonies; and that, if the cultivation of it were permitted, it would prove to be extremely useful to the British agriculturist, as he knew, from his own experience, that it might be grown in this country as readily as on the continent. He concluded by moving that the society should apply to ministers, and request the laws respecting the growth of tobacco to be repealed, as the growth of it in England would be a means of preparing the ground for wheat. The motion was seconded and unanimously carried.

☞ At the meeting mentioned in the above paragraph, Doctor Parry is said to have delivered an able speech in which he commented upon the inutility of attempting in England to produce *fine wool*, so as to supersede the necessity of importation.—Year after year, he observed, premiums had been offered for the encouragement of the growth of fine wool; yet, notwithstanding all the attempts that had been made, they had, with the exception of a few *instances*, proved *ineffectual*, and had not produced *any practical results*. He moved, therefore, that all premiums relating to fine wool should be suspended, and that in lieu of them a premium of 50*l.* should be substituted for the best essay on the subject, that it might be determined whether growth of fine wool in England be or be not possible for the production of practical results; and if it were, to explain the cause of the failure of the preceding experiments.

Mr. G. W. Hall seconded the motion, feeling convinced that the question wanted to be set at rest, and that offering liberal premiums for essays on the subject was the best method of obtaining information, and deciding the important question.

Mr. Smythies and Mr. Benett concurred in the proposition; and expressed their sentiments of its great importance. The motion was unanimously carried.

The prize essay, when published, shall be copied into the American Farmer as far as it may be found suitable to our country, and to give information useful to American wool growers.

PROPERTIES AND VALUE OF SALT IN FEEDING CATTLE.

Talk with farmers, and you will scarcely find one who has not a vague notion of the utility of supplying cattle with salt.—In this matter as in many others, they will admit in theory and in general terms what they never, or at least very rarely put systematically into practice. We are greatly mistaken if one farmer out of twenty, who reads this article takes measures by which his cattle are *freely and regularly salted.*

How do they know what are the kind and number of disorders amongst their cattle, which originate in the want of that portion of salt which nature seems to demand as a necessary condiment? How can they estimate the improved condition and health that would accrue to those which even shew no visible disorder, provided they were so abundantly and regularly supplied with this cheap addition to their ordinary provision? If any doubt its wholesome tendency, let them compare in summer season, the appearance of cattle and sheep that on our tide waters, have access to salt water, with those near to them, yet in the forest beyond the reach of that resource.

In one of our latest English publications we find some striking proofs of the value of salt in feeding cattle extracted from testimonies in its favour as a manure and a condiment, by the Rev. B. Dacre—By the by, it is to be observed that many of the Rev. gentlemen in England make most excellent and observing farmers, and first rate fox hunters.

The extracts referred to here follow.

Quantity of Salt given to stock per day and per week, communicated by Mr. Curwen to Mr. Johnson, of Great Totham, Essex, December, 1819.

The table shows that the quantity given from April, 1818, to December, 1819, was increased with benefit.

	Ounces.		Ounces.		
Horses	4	increased to	6	per day.	given at twice.
Milch Cows .	4	. . . .		per day.	
Feeding Oxen	4	increased to	6	per day.	
Yearlings . . .	2	increased to	3	per day.	
Calves	1	. . . .		per day.	
Sheep	3	increased to	4	per week.	

If feeding on dry pastures, but when feeding on turnips or coles, salt should be given without stint.

"In the spring my flock was attacked with an inflammatory disorder; I gave them considerably of salt, some took five ounces per day; the disorder was speedily stopped by it. Salt removes the taste of the turnips from milk and butter. It prevents the grease; I have given a pound per day with advantage to horses that have been excessively greased. Mr. Curwen this day, February 20, 1822, informs us, that before he commenced giving his cattle salt, his farmer's bill for medicine averaged 58*l* per annum, and that, since the use of salt, he has never paid in any one year five shillings!"

THOUSAND HEADED OR TREE CABBAGE.

Sir,—Can you inform me whether the seed sold under the above name in this country, is the same called in "Loudoun's Gardener's Magazine," the Tree or Cow Cabbage, said to be extensively cultivated in La Vendèe where it grows to an enormous size, and if any have been cultivated here to what size did it attain and how long did it last.

J. S. SKINNER, ESQ. QUERIST.

BALTIMORE FLOUR MARKET.—The prices of flour continue to decline; small sales of Howard street were made on Wednesday at $6 25; but it is believed that any considerable sales could not be effected at that rate—the principal stock now in market being on storage.—The wagon price was $5 75. There is but little corn in market—it is in demand. The duty on eight bushels of wheat in England being $2 37, or 29⅝ cents a bushel, and $1 28 a barrel on flour; these articles may be considered virtually excluded from the English ports for consumption for the present at least.

LATEST FOREIGN NEWS.

Since our last there have been arrivals from Europe bringing dates from Liverpool to the 24th, London to the 23d, and Paris to the 19th March. The Catholic question still continued to occupy exclusively both the press and public attention. There had been a duel betwen the Duke of Wellington and the Earl of Winchelsea and Nottingham, which resulted without injury to either.

On the 17th ult. Mr. Peel moved the order of the day for the second reading of the Catholic Relief Bill. A long and animated debate ensued, part of which was not heard by the reporters, on account of the noise that prevailed in the house. On the 18th, after presenting of a multitude of petitions pro and con, Mr. Peel moved the order of the day for resuming the debate. After several members had addressed the house, the gallery was cleared, and the house divided, when there appeared,

Ayes, 353—Noes, 173—majority 180.

The bill was read a second time, and ordered to be committed on Monday. On the following day, Mr. Peel having moved the order of the day for the second reading of the election franchise bill, the house divided, when the second reading was carried by 222 to 16—majority 206.

The London Courier allows the Russians no credit for fair manly fighting, on any occasion. It attempts to make its readers believe, that the reduction of Tournoul was effected by the force of gold, as much as by that of arms. "The Pacha who commanded at that place, and the chief magistrate, thought it prudent, in consequence, to remain with Count Langeron, instead of availing themselves of the terms of the capitulation. It appears that they were right, for the three other magistrates who carried the capitulation to Tchapin Oglou, were beheaded by his orders." No wonder there is a reluctance to bear ill news to those who thus reward the messengers!

The preparations making by the Porte are stated in an article from the frontier of Servia, dated Feb. 28, to "approach the marvellous" too nearly to be believed.

FRANCE.—The Chamber of Deputies are engaged in the discussion of the bill to continue the tobacco and snuff monopoly to January 1837. It appears that the tax on these articles under the present regulations brings annually 45 millions of francs into the public treasury. The opposers ground themselves on the general principles of free trade, denouncing the proposed law and the monoply which it continues in being, as unconstitutional and as going to deprive the citizens of France of the free exercise of industry and commerce. The friends of the measure defend it as an expedient for raising a revenue, and as one of the least oppressive taxes that could be imposed upon the people.

Liverpool, March 21.

The active demand for Cotton noticed last week has been succeeded by a limited business, and the sales for this week amount to 9800 bales, viz: 150 Sea island 10¾ a 16; 5860 Uplands, 5817 at 5¼ a 6 1 3 20 at 8 3-8, 23 at 6½, 1120 Orleans, 1110 at 6 a 7, 10 at 7¾; 970 Alabama, 4 7-8 a 6; 1060 Brazils, 6½ a 7 5-8; 40 Egyptian 7 a 7¼; 330 West India, 6 1-8 a 8¾; 270 Surat, 3½ a 4½.

Although in some instances lower rates have been accepted, and it is evident that to make sales to any extent this must be done. Holders do not appear to be anxious to realize largely under these circumstances, but the spirit of purchasers has in a great measure subsided for the present, and the market has a drooping tendency. About 500 of the Uplands were taken on speculation, and the same quantity for export. The import during the week is 3042 bales, and since the 1st of January, it amounts to 153,319, against 115,373 to this period last year. The increase in the supply from the United States is 37,837 bales. The sales to-day are computed at 12,000 bales.

You will observe the business done in Louisiana Cotton is very limited, the principal inquiry continues to be for Upland at 5¼ a 6d, for fair to good quality. We have examined lately several parcels and do not notice yet any falling off in the quality.

The demand for Corn, both here and in London, has been much better. In Flour also a fair business has been done, 38s a 39s; duty 6s 5d.

There has been some business done in Tobacco, both on speculation and for the trade; 5½d a 6d has been given for good Virginia stemmed. We have heard of no sales in Kentucky leaf or stemmed; we quote the former 2¾ a 3¾d. and the latter 4d a 6d.

There is much fear that Government will at some future period, propose again an additional duty on stemmed Tobacco; but in what mode and to what extent the Chancellor of the Exchequer has declined giving any information. Under present circumstances we would not recommend any shipment of that description.

Liverpool Corn Market, March 23.

The following are the prices of grain, with the respective rates of duty, as made up this day:

Average price of Corn for the last week.—Wheat 66s 2d; Barley 31s 3d; Oats 21s 7d; Rye 37s 8d; Beans 33s 8d; Peas 35s 10d.

Imperial aggregate averages the six weeks preceding—Wheat 70s 5d; Barley 32s 11d; Oats 22s 7d; Rye 39s 2d; Beans 34s 8d: Peas 36s 8d.

Duties on Foreign Corn.—Wheat 10s 8d; Barley 13s 10d; Oats 13s 9d; Rye 11s; Beans 16s 3d; Peas 15s 6d.

Prices Current in Boston, April 24.

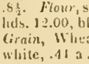
Apples, best, bbl. $2.00 a 2.50. *Beans*, white, bushel 1.00 a 1.37. *Beef*, mess, bbl. 10.00 a 10.50; cargo No. 1, 9 00 a 9.50; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 8.75 a 9.00; Genesee, 8 75 a 9 00; Rye, best, —. *Grain*, Corn, bush. .63 a 65; Rye, .60 a .66; Barley .67; Oats .35 a .38. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl 16.00 a 16.50; Navy, mess, 13.00 a 13.50; Cargo, No. 1. 13.00 a 13.25. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top 62 a 1.00; Lucerne, lb. .50; White Honeysuckle Clover, .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel 1.50. *Wool*, Merino, full blood, washed, .35 a .44; do. do. unwashed, .22 a .26; do. three-fourths washed, .30 a .35, do. half and quarter washed, .28 a .33; Native, washed .25 a .28; Pulled, Lambs', 1st sort, .37 a 41; do. do. 2d sort, .25 a .30; do. do. spinning, 1st sort. 30 a .33.

Prices Current in New York, April 25.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .10 a .12; Upland, .8¾ a .10½; Alabama, 9 a 11. *Cotton Bagging*, Hemp .19 a .21; Flax .15 a .18. *Flax*, American .8 a .9¾. *Flaxseed*, rough, tierce ——; clean ——. *Flour*, N. York, bbl. 6.37½ a 6.50; Canal 7.00 a 7 50; Baltimore Howard st. 6.87½ a 7; Richmond city mills, 6.50; country, 6.12½ a 6.25; Alexandria, 6.25 a 6.50; Fredericksburg 6.12½ a 6.25; Petersburg, 6.12½ a 6.25; Rye Flour, 3 75; Indian Meal, per bbl. 2.50; per hhd. 13.00 a 13.50 *Grain*, Wheat, Virginia 1.27 a 1.28; N. Carolina 1.28; Rye, North, .70 a .72; Corn, North, .54 a. 56; Barley, .53 a 55; Oats, South and North, .31 a .35; Peas, white dry 7 bu. 6.00; Beans, 7 bu. 8 00 a 8.50. *Provisions*, Beef, mess 9.50 a 10.00; prime 7.50 a 8.00; cargo 6.00; Butter, N York, 12½ a 16; shipping, .8 a .11; Lard, .5½ a .6¼; Pork, mess 12.50 a 13.00; prime 9.75 a 10.00; cargo 8.50 a 8.75; Hams, Va., per lb. .9 a 10; Northern .9 a .10. *Rice* .2¾ a .3¼; Whiskey, rye, gall. 23; Cider Brandy .30 a .33. *Tobacco*, Virginia .3½ a .5½ a 6½; Kentucky, .3¾ a 5½ a .6½. *Wool*, Merino, American fleece, .32 a .38; Pulled, .32 a .35; common, .18 a .25.

Prices Current in Philadelphia, April 27.

Bees-wax, yellow .23 a .24; *Beans*, bushel $1.25 a 1.50; *Beef*, mess 10 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .9 a .9½, No. 2, .5 a .6; *Cotton*, New Orleans .11 a .13, Upland .9 a .10½, Tennessee .9 a .10½, Alabama .9 a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .8 a .8½. *Flour*, super. 6.75, fine 6.50; Rye 3.25; Cornmeal, hds. 12.00, bls. 2.25; *Flaxseed*, cask 9.50 a 9.75; bu. 1.40; *Grain*, Wheat 1.40 a 1.45; Rye .50 a .60, Corn l. c. white, .41 a .44, l. c. yellow, .45 a .47, u. c. round, 50 a .52; Oats .31 a 37, Barley, Pa. .45 a .50; do. Eastern, .55; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western 7; *Hemp*, 220; *Lard*, .6 a .8½; *Oil*, linseed, .81 a 82; *Pork*, mess, 13.00 a 13.50, prime 12, cargo 10.25 a 10.50; *Rice*, 2.50 a 3.50; *Tobacco*, Kentucky .4 a .7, Virginia .4½ a .7; *Wool*, common washed lb. .28 a .30, half blood .30 a .33, three quarters blood .33 a .35, full blood .36 a .40, unwashed, generally 10 cents less, according to quality.



ANDREW PARMENTIER, Proprietor of the Horticultural and Botanical Garden, Brooklyn, New York, at the junction of Flatbush and Jamaica Turnpike, 2 miles from the ferries, offers 12 of the most select Table Grapes, very hardy, of the north of France, at $6 the dozen, with directions for planting, &c., or at 75 cents a piece separately—such as they are described in his catalogue. He also offers for sale Vines at 25 cents each, for vineyards, warranted to grow. They can be had from the 15th October to the 15th December, and from the 15th March to the 15th May—a great many have borne fruit last summer. He has a choice assortment of 242 kinds of apples, 190 kinds of superior pears, 71 cherries, 64 peaches, 15 nectarines, 85 plums, 18 apricots, 20 gooseberries, &c. some of very large size and in a fine bearing state. Also, apple trees, paradise stock, full of fruit. His collection of ornamental and forest trees, and of ornamental shrubs, is of 396 kinds, and more than 200 rose plants, and a fine collection of greenhouse plants.

A. P. will undertake to lay out pleasure grounds and gardens, and will be happy in showing his port folio to amateurs, at his establishment of nurseries, which consists of 24 acres.

Orders directed to A. Parmentier, at his establishment, or left with Gideon B. Smith, agent for the proprietor, at the office of the American Farmer, Baltimore, where catalogues can be had *gratis*, will be promptly attended to.

FOR SALE,

The Hunter Stallion Sky-Lark, sired by Exile, out of a full blooded Chance mare; he received a premium at the Cattle show in 1827—see vol. 9, American Farmer, 323.

Offers will also be received to farm him until the first of August. PHILIP WALLIS, *Baltimore.*

ALMANAC.

1829. May.		Sun. Rises.		Sun. Sets.		Length of days.		Moon Rises.	
		H.	M.	H.	M.	H.	M.	H.	M.
Saturday,......	2	5	8	6	52	13	44	4	44
Sunday,........	3	5	7	6	53	13	46	sets.	
Monday........	4	5	5	6	55	13	50	8	34
Tuesday,......	5	5	4	6	56	13	52	9	33
Wednesday...	6	5	3	6	57	13	54	10	26
Thursday,.....	7	5	2	6	58	13	56	11	14
Friday,.........	8	5	1	6	59	13	58	11	55

New Moon, 3d, 2 h. 50 m. Mg.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

Tobacco.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary. 4.00 *a* 6.00—red, 5.00 *a* 8.00—fine red, 8.00 *a* 10.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red 8.00 *a* 12.00—fine yellow 10.00 *a* 20.00—Rappahannock, 4.00 *a* 6.00—Kentucky, common 5.00 *a* 7.00—wrapping, 6.00 *a* 8.00.

Flour—best white wheat family, $7.50—superfine Howard street 6.00 *a* 6.25; city mills, 5.75 *a* 6.00; Susquehanna, 6.00—Corn Meal, bbl. 2.50—Grain, best red wheat, 1.20 *a* 1.30—best white do. 1.30 *a* 1.50—ord. to good, .70 *a* 1.25--Corn, .42 *a* .44—Rye, .45 *a* .50—Oats, .26 *a* .28—Beans, 1.00 *a* 1.25—Peas, .55 *a* .60—Clover seed, 4.00 *a* 4.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—Barley, .45 *a* .50—Flaxseed, 1.00—Cotton, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alabama, .10 *a* .11 Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .12—Whiskey, hhds 1st pf. .22 *a* .22½—in bbls. 24—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 3.25; No. 2, 2.87½ *a* 3—Mackerel, No. 1, 6.60; No. 2, 5.25; No. 3 4.25—Bacon, hams, Baltimore cured, new, .9½ *a* .10, old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .29—Plaster Paris, cargo price per ton, $7.00, ground, 1 37½ bbl.

Marketing.—Apples, per bushel, $2.00; Squabs, 18¾; Turkies, each, 1.25; Butter, lb. .25 *a* 37½; Eggs, .11 *a* .12½; Potatoes, Irish, bush. 1.00; Fowls, doz. 3 *a* 3.75; Ducks, 3.00 *a* 3.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .87½; 1.00 Sausages, lb. .8; Onions, bush. .50; Beets, bush. 1.00; Turnips, bush. .25; Terrapins, 4.00 *a* 4.50 per doz; Pork, 5.50 *a* 6.00 cwt.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor by John D. Toy, corner of St. Paul and Market streets, where every description of printing is neatly executed.

AGRICULTURE.

Agriculture of the North of Europe.

[The Editor of the American Farmer was some time since complimented by the distinguished British Statist, William Jacob, with a copy of his various works.

From his Report on the Agriculture of the North of Europe, as it has not been republished in America, passages which strike us in the course of perusal, will be submitted to the readers of the American Farmer. They will be such as are supposed to contain information of value, or hints that may be improved.]

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The whole of the internal commerce of Poland is in the hands of the Jews, who are very numerous, comprehending nearly one-seventh of the whole population, and not being engaged in cultivation, nor inhabiting villages, forming the majority in most of the market towns. They are acute, temperate, economical, rather active than industrious, and are said to be possessors of the far larger proportion of the floating capital of the country. Almost every transaction passes through their hands, and few persons can either buy or sell, borrow or lend, without the aid of some individuals of that race. Though not allowed by the law to call themselves brokers or factors, they are effectually such to the whole of the nation.

They are accused of nourishing a most implacable hatred towards all other people, and of deeming it no moral crime to deceive and cheat christians. Whatever of truth there may be in these charges, these supposed feelings of the Jews are met, on the part of the majority of the other inhabitants, by a degree of contempt and degrading treatment, of the most aggravating nature; a treatment so remote from what is exercised towards that people in England, Germany, France, and Holland, that it may have perhaps mainly contributed to form the character which they are accused of bearing.[*]

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There are two modes of conveying wheat to Dantzic by the Vistula. That which grows near the lower parts of the river, comprehending Polish Prussia, and part of the province of Plock, and of Masovia, in the kingdom of Poland, which is generally of an inferior quality, is conveyed in covered boats, with shifting boards that protect the cargo from the rain, but not from pilfering. These vessels are long, and draw about fifteen inches water, and bring about 150 quarters (1200 bushels) of wheat. They are not, however, so well calculated for the upper parts of the river. From Cracow, where the Vistula first becomes navigable, to below the junction of the Bug with that stream, the wheat is mostly conveyed to Dantzic in open flats. These are constructed on the banks, in seasons of leisure, on spots far from the ordinary reach of the water, but which, when the rains of autumn, or the melted snow of the Carpathian mountains, in the spring, fill and overflow the river, are easily floated.

Barges of this description are about 75 feet long, and 20 broad, with a depth of two feet and a half, They are made of fir, rudely put together, fastened with wooden treenails, the corners dovetailed and secured with slight iron clamps, the only iron employed in the construction.

A large tree, the length of the vessel, runs along the bottom, to which the timbers are secured. This roughly cut keelson rises nine or ten inches from the floor, and hurdles are laid on it, which extend to the sides. They are covered with mats made of rye straw, and serve the purpose of dunnage; leaving below a space in which the water that leaks through the sides and bottom is received. The bulk is kept from the sides and ends of the barge by a similar plan. The water, which these ill-constructed and imperfectly caulked vessels receive, is dipped out at the end and sides of the bulk of wheat.

Vessels of this description draw from ten to twelve inches of water, and yet they frequently get aground, in descending the river. The cargoes usually consist of from 180 to 200 quarters of wheat.

The wheat is thrown on the mats, piled as high as the gunwale, and left uncovered, exposed to all the inclemencies of the weather, and to the pilfering of the crew. During the passage, the barge is carried along by the force of the stream, oars being merely used at the head and stern, to steer clear of the sand banks, which are numerous and shifting; and to direct the vessel in passing under the several bridges. These vessels are conducted by six or seven men. A small boat precedes with a man in it, who is employed in sounding, in order to avoid the shifting shoals. This mode of navigating is necessarily very slow; and during the progress of it, which lasts several weeks, and even months, the rain, if any falls, soon causes the wheat to grow, and the vessel assumes the appearance of a floating meadow. The shooting of the fibres soon forms a thick mat, and prevents the rain from penetrating more than an inch or two. The main bulk is protected by this kind of covering, and when that is thrown aside, is found in tolerable condition.

The vessels are broken up at Dantzic, and usually sell for about two thirds of their original cost. The men who conduct them return on foot.

When the cargo arrives at Dantzic or Elbing, all but the grown surface is thrown on the land, spread abroad, exposed to the sun and air, and frequently turned over till any slight moisture that it may have imbibed, is dried. If a shower of rain falls, as well as during the night, the heaps of wheat on the shore are thrown together, in the form of the steep roof of a house, that the rain may run off, and are covered with a linen cloth. It is thus frequently a long time after the wheat has reached Dantzic, before it is fit to be placed in the warehouses.

The trade in wheat from Poland and Prussia, through Dantzic, is said to have been attended with most ruinous losses to all the persons who have been engaged in it. The growers asserted that none for the last eight or nine years had yielded sufficient to cover the expenses of cultivation, and that it has been regularly getting worse and worse ever since the year 1818.

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According to the official documents, which I collected, it appears that the three maritime provinces of East Prussia, West Prussia, and Pomerania, including in the latter the late Swedish territory, contain about 25,500,000 acres, or more than half the extent of England. By an official account, made up in 1821, the stock of cattle appeared to be as follows, at the latter end of the year 1819; viz.

556,839	horses and colts.
1,171,434	oxen, cows, and calves.
2,049,801	sheep, and lambs,—and,
617,310	swine.

The lowest estimate of the stock of cattle in England, which I have ever met with, gives three times this number of horses, and more than four times the number of cows and sheep, to the same extent of land; and most of those who have calculated on the subject, have carried the proportion of cattle to surface in England, much higher. I had reason to believe, though not from official sources, that the number of sheep, between 1819 and 1824, had increased at the rate of from 20 to 25 per cent., and that the proportion of fine-wooled sheep, to those of coarse wool, had been augmented beyond that proportion.

From this deficient stock of the animals, from which manure is derived, it will naturally be inferred, that the increase of grain must be very small. I was satisfied, from my own observations, and it was confirmed by the opinion of intelligent natives, that much of the land in cultivation could not yield on the average more than three times as much corn as the seed that had been sown.

The calculations made by the most intelligent statistical inquiries, and the most observing cultivators, have not estimated the average increase of the four kinds of grain, viz. wheat, rye, barley, and oats, taken together, to be more than four times the seed.

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At the tables of the first families, both in Germany and Poland, though wheaten bread was always to be seen, I remarked that the natives scarcely ever tasted it; and I have met many Englishmen, who, after a long residence in those countries, have given the preference to bread of rye.

—

Barley and oats are sown in the spring which follows the harvesting the wheat and rye, and these complete the course, which is again followed by a whole year's fallow. By this rotation of crops, the land bears corn only two years out of every three; and the crop of the last year scarcely produces three times the quantity of the seed that was sown.

This opinion, formed by my own observations, strengthened by the reports of the most intelligent persons with whom I conversed, who were connected with practical agriculture, receives some confirmation from a paper furnished to me by Mr. Leutze, his Majesty's consul at Stettin; according to which, in 1805, the year previous to that in which the country was over-run by the French, the quantities of corn sowed and harvested in the province of Pomerania, when the Swedish part was not incorporated with it, are as follow:

		Bushels.		Bushels.
Wheat	sown	155,936	produced	996,224
Rye	do.	1,254,960	do.	4,383,584
Barley	do.	619,992	do.	2,757,688
Oats	do.	1,245,704	do.	2,975,880

(From the New England Farmer.)

SOWING GRASS SEEDS IN THE FALL.

The sowing of grass seeds in spring, may take place, either with, or without grain; if they are sown with grain, the young grass will suffer greatly by the interference of the roots, and of the straw of the grain; the roots will rob it of a great portion of its nutriment, and the straw will deprive it in a great measure, of the benefits of the atmosphere, air, sun, dews, and rains. Grain and grass thus striving together, are drawn up faster and slimmer, than they would, if sown separate and alone; this forced growth injures the roots of the grass, which at the time that the grain is mowed, is left exposed, weak, and exhausted, to the ardent heat of the sun, deprived on a sudden of the shade, which before, was forced on it by the grain. Upon new lands, or such as are richly manured, these injuries may not, perhaps, in common years, prove destructive, but upon our old fields, the chance is truly a deplorable one, and has got to be more and more so, for ten or twelve years past.

Should the farmer prefer to sow his grass seeds alone, and without grain, then a crop of weeds, of various kinds, will start up, more or less overpowering, according to the state of the land; the careful farmer will mow them, make them, and carry them into his barn, and console himself with the idea that it is better than nothing; although the growth of these weeds exhausts the land, and so far injures the young grass, yet unless they should be very abundant and thick, the grass will have a better chance than when sown with grain, which of all methods, I am apt to consider to be the worst in this climate, especially if sown with oats, which of all grains used with us for that purpose, are the most exhausting and overpowering. It is evident that in the contest between grain and grass, when sown together, although grain is always triumphant in the main point, which is life, yet the quality of the produce suffers greatly; the roots of the grain are obstructed by those of the grass, and the soil being more or less covered and clothed by the grass, the roots of the grain are deprived of the fullness of the benefit of air, and heat, dews, and rains which they would otherwise have enjoyed. The result is, that out of twenty samples of barley thus raised, nineteen, I expect, upon an average, are slighted by the brewers, looking more like hulls than grain, and the price which ought not to be less than one dollar per bushel, to afford a fair emolument to the farmer has ranged for years past at tbirty per cent., or more, under that mark.

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[*] Thanks to the progress of light and truth, our own country is escaping from the deep reproach which is here cast on the Polish Christian. Maryland, it is true, has been amongst the last to wipe the stain of ignorance and fanaticism from her statute book—but we thank heaven, for the honour of our native state, that it has been wiped out in our day. The infamous treatment experienced by this persecuted class would naturally generate, if it did not justify, a spirit of retaliation on the Pseudo-Christian, who would have a Jew be trampled upon without the worm's poor privilege of even turning—and at the next moment when it suits his own purpose will tell you, "an eye for an eye, and a tooth for a tooth."—Ed. Am. Far.]

We may conclude, therefore, from the exposition of these facts, if correctly stated, that the result of sowing grain and grass is to injure both crops, and very often to lose the grass entirely. Such loss and vexation may be avoided by sowing the grain alone, early in the spring, with such manure as has been allotted for the field; and as soon as possible in August, after the crop of grain has been housed, to plough the stubble in, turning a good furrow, that the stubble may have a chance of mouldering away, which the showers usually taking place about that time, and the heat of the weather, will generally bring about in the course of twelve or fifteen days; before the end of August the field should be cross ploughed, the grass seeds sown on the furrow, harrowed, and rolled.* It is of much importance in this part of the process to avoid any delay, and therefore it is qnite needful to put in the grass seeds, even if the weather should happen to be dry at the time, they will lay safe in the ground, and be ready to improve the benefit of the first showers, when the grass will soon make its appearance, and generally a good progress before the winter sets in. If the winter should prove favorable, nothing further is wanted to secure a good and lasting field of grass, than to draw the roller over it in the spring, as soon as the frost gets out of the ground; this will settle the roots of the young grass, which the frost will always heave up, and which without rolling would be exposed to suffer from an exposure to the sun and to the wind. In case that the winter should prove changeable, with cold turns, and successive thaws and hard rains, then the grass will be exposed to suffer, by being killed in spots, perhaps some of it washed away; in such cases it is needful as soon as the frost is out of the ground, and it is not wet, to harrow the field over, and sow some fresh seeds upon such spots as may have suffered, and roll over immediately.

The benefit of the harrow and roller, in these cases is such, as will surprise, and I do believe that if the young grass was in all cases harrowed in spring, and then rolled, it would prove a great advantage; it acts like a cultivation to it, improving immediately its appearance as much as a good hoeing does corn, or potato fields. It is needful to observe that if clover is the object, fall is not an advisable time to sow it. I have always found it to suffer by the winter when so young, and therefore have occasionally delayed to sow it until spring over the young grass, harrowed and rolled, and all has been well. Upon a gravelly soil which will not retain the grass, clover is advisable; upon loams I feel very little anxiety for clover, because it will smother the grass, and I esteem herds grass and red top to be a more valuable crop, they will last much longer, and give a fodder of much greater substance. I shall close these remarks by confirming a well settled opinion, that fall, is generally, the most advisable and best season, with proper management and diligence, to sow grass seeds. The sun is then losing gradually its ardency, the earth is cooling with rains and longer nights, it is that state of soil and of atmosphere which is genial to grasses, it assists the rooting, the setting of the grass, by checking the growth of the top and favoring the roots. But, after all, general rules are subject to many exceptions, and particularly so in agriculture, therefore the application and modification of the same must be the study of every attentive farmer, in order to suit them to the nature, situations, and workings of bis lands. With much esteem your friend,

Weston, April 25, 1829. J. M. G.

P. S. When grain is not a desirable article to be raised by the farmer, a crop of early potatoes will answer a very good purpose, and leave the land early enough, aod in excellent order for grass seeds.

DOUGLASS' THRESHING MACHINE.

By the Board of trustees of the Maryland Agricultural Society, for the Eastern Shore.

St. Aubin, January 22. 1829.

The committee, appointed at a former meeting to examine the merits and operation of a Threshing Machine invented by Mr. Douglass of New York, and introduced into this neighbourhood by Mr. Z. Booth, presented a special Report of their investigations thereof; which was read and maturely considered. And the Board being of opinion that the facts and observations it contains would convey highly useful information to the community of farmers, and serve to recommend a valuable machine. It is thereupon ordered that a copy thereof be transmitted to the Editor of the "American Farmer," with a reqoest that he publish the same in his popular journal. N. Hammond, *Chairman.*

The committee appointed to report on the subject of machines, at the next meeting of the Board at St. Aubin, submit the following as the result of their investigation.

The machines made for threshing wheat hitherto, have been held at a price vastly beyond their value, and not within the means of the great mass of farmers. The only exception to the above, was the machine of Merrell, for which a premium was given by the Agricultural Society of Maryland a few years ago. This, however, proved to be inoperative in a very short time, and was consequently discarded, although the price was reasonable. The machine, to which the attention of the committee has been particularly directed, is that of Douglass of New York, introduced here by Mr. Zalmon Booth, who holds the patent right for the state of Maryland. A simple statement of facts will probably be the best method of illustratiog the merits of it. Four of these machines have been successfully employed the past season, on this shore—and each has threshed out a crop of wheat. Unfortunately for the farmers generally, the wheat which escaped the hail, was so injured by rust, that no fair estimate can be given of the quantity, which can be threshed by the hour or day. It is confidently believed, however, both by Mr. Hollyday and Mr. Goldsborough from the quantity of straw passed through them, that they will thresh out one hundred and fifty bushels in the long days of August, with either three or four horses or mules attached to them—and the labour to the animals is light, and vastly preferable to the old mode of treading out. As to the quantum of manual labour requisite, this will depend on a variety of circumstances—the distance of the wheat in the stack, or wherever it may be stowed, from the machine, and whether the farmer stacks or puts away the straw, while the machine is in operation. But to give some idea of the labour to those unaccustomed to machinery, it may be stated, that it will require one hand to feed, one to cut the bands and pass the wheat to the feeder, one to rake off the straw, and generally two to bring the wheat from the stack, and a boy to drive the horses—in all six. Every farmer can form his own estimate of the force necessary to remove and stack the straw, if this should be done while the machine is in operation. Mr. Hollyday threshed, in wheat which yielded badly, fourteen bushels in the hour—and also made an accurate and minute experiment of the quantity lost or left in the straw; and ascertained it to be two and a half per cent. The machine of Mr. N. Goldsborough got out one hundred and ten and a half bushels, in eight and a half hours precisely—this wheat also yielded badly; it was the object to ascertain, in this experiment, what tho machine would do in regular work. The hands, therefore, had no knowledge of the design whatever, and the work proceeded in the ordinary way. The machine of Mr. Edward Tilghman, of Queen Anns, has performed not quite so well as those above stated; this has been attributed to a different arrangement of the teeth; and that particular mode has been abandoned in all the machines subsequently built, as we have been assured recently by the patentee. Col. Chambers of Chestertown, has a machine which has operated with great success—we have been informed, from good authority, that it has threshed twenty bushels in an hour, notwithstanding the bad quality of the wheat generally the past season. To account for this, it is necessary to state, that Col. C's. machine is quadruple* geared, and that it requires six or eight horses—the velocity is immense—the cylinder revolving three hundred and fifty times to one revolution of the horse wheel. It may be remarked, generally, that this machine is simple in its ronstruction, and easily repaired should any accident occur—that the gin rollers are wholly dispensed with, and are unnecessary. These in other machines, were liable to derangement, and increased the expense. Mr. Booth states in a recent communication, that a new horse power has been invented, which operates admirably, and is superior to those we have had here. He offers to deliver in Baltimore, a machine and horse power complete, "*warranted* of good materials, and to perform well and satisfactorily, for $175."—Refer to W. Rhoads, agent, No. 12, Bowly's wharf, Baltimore—where a model may be seen. There can be no question as to the efficacy of this machine; and it is certainly offered cheaper than any other worth possessing. It may be added too, that Mr. Booth, who holds the right for this state, has acted liberally and honourably, and therefore merits the patronage of the farmers of Maryland.

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* The opinion of our respected correspondent relative to sowing grass seeds in August is corroborated by respectable writers on agriculture. We alluded to Young's Farmer's Calendar, in our remarks on this subject, page 307, of the current vol. of the N. E. Farmer, in which the preference is given to August. The Complete Grazier, an English work of reputation, observes that "from the extensive experiments of the Earl of Holderness, it appears that seeds (of grass) answer best when sown alone. The fact, however, is as an iotelligent agriculturist has remarked, that grass seeds will succeed almost equally well in either method; though if a preference were given it should be to August sowing without coro," (grain.)—*Ed. N. E. Far.*

* Col. Chambers' machine was attached to a large horse wheel, which he had on one of his farms—and had the combined power of two different machines.

EXPERIMENT FARM.

[We have heretofore noticed the fact, that the Muskingum Agricultural and Manufacturing Society, in Ohio, had resolved to obtain an Experiment Farm, for the purpose of promoting the interests of agriculture in that state. We are indebted to a member of the Society for a copy of the proceedings of the Society in relation thereto, and also the following notice from the committee appointed to manage the farm.]

Notice.

The subscribers having been, by the Muskingum Agricultural and Manufacturing Society, appointed managers of its Experiment Farm, are now ready to, and will thankfully receive information as to the different methods or systems of cultivating any article, the production of, or experiment with which may be deemed advisable.

Any rare or uncommon seeds, roots, plants or other vegetable production, indigenous or exotic, with instructions, as to the cultivation of the same, would be very acceptable, as it is intended, on this farm to make experiments in every thing connected with agriculture, to which our climate may, by possibility, be congenial. Donations to this institution, of animals, implements of husbandry, or other articles, which may be deemed necessary for, or useful in conducting this farm, will also be thankfully received. Those in our immediate neighborhood, who are disposed to aid this establishment, by contributions of any kind, are requested to deposit them with either of the managers, or to make known, such disposition, to the Secretary of the society, when the articles will be sent for.

Persons, at a distance from us, who are desirous to encourage or assist the agricultural interest of our country, by donations to this institution or information to its managers; are requested to inform the Secretary of the society by letters directed to this place, of the former, where instructions will be given to the donors, as to the place of deposit or manner of forwarding the same, and make their communications to him, as to the latter.

We wish to employ some person to superintend, under the direction of the managers, the farm aforementioned, which lies near this place, who has a thorough practical knowledge of the different departments of Agriculture, Horticulture, Fruitery, and Shrubbery; particularly of the cultivation of the grape, foreign and domestic; and of the mulberry tree and silk worm. To such, should he come *well recommended*, liberal wages, and a comfortable residence will be given.—Communications on this subject will be made to the Secretary of the society, by letter, post-paid, and directed to this place.

JOHN DILLON,
SETH ADAMS,
MATTHEW GILLESPIE.

Zanesville, Ohio, April 23, 1829.

The Editors of newspapers in the United States, will serve the agricultural interest generally, and this society in particular, by inserting this notice in their papers as often as convenient.

REMARKS ON CORNS IN HORSES' FEET,

By Dr. Townsend Cocke, of Brooklyn, L. Island.

Corns are a very frequent disease, and common to all descriptions of horses. Those accustomed to slow work are least liable to it. The hind feet are generally not subject to the disease, although in some few instances I have discovered them, but not in a degree to produce the bad effects occasioned by the disease in the fore feet.

Corns generally appear in the inner heels of the fore feet, at the angle between the bars and the crust. They seldom occur on the outside heels. On removing the superfluous horn, corns show themselves by a reddish appearance; and on the removal of more of the horn, they exhibit the appearance of a bruise charged with blood, which has made its way into the pores of the horn. This appearance sometimes predominates in the direction of the bars, and sometimes between the crust and the sole, taking the direction of the lamina. Corns, like thrushes, are not always accompanied with lameness, though it is a very frequent and troublesome consequence of them.

It is, in this disease, a disputed point, whether a horse is to be considered sound or unsound, that has corns. As they frequently appear at an early age, and in some instances before the animal has been shod, the disease might be put on a footing, as to soundness of the horse, with the thrushes. If there be only the exhibition of a corn, without any material change in the form of the hoof, or previous lameness, I should not hesitate to pronounce him sound: but, on the contrary, if the form of the foot is changed, and the horse expresses soreness when pressed by a pair of pincers, I should consider him unsound. It may be objected to this, that a disease once exhibited constitutes unsoundness; but I think a distinction should be made when there is only a trifling appearance of disease, without lameness, and when, by proper care, it gradually and wholly disappears.

When lameness proceeds from corns, it generally comes on by degrees. When there is no reason to suspect the cause of lameness to be in any part above the foot, the shoe should be removed, when the drawing knife and pincers will soon ascertain if it is occasioned by corns.

Corns, as was observed before, may result from the horn taking a wrong direction in its early growth, or by the pressure of the *shoe;* those which arise from the latter cause are by far the most numerous. The increased pressure given by the shoe to the internal sensible heel, causes an extravasation of blood into the pores of the horn of the hoof; and if the pressure is continued, and more blood extravasated than can be readily taken into the circulation by the absorbent vessels, inflammation follows, and suppuration often succeeds.

In some instances, where corns have not been suspected to exist, and the horse has continued lame for some time, it is found that matter has formed under the horn, pervading the sole and frog, making its way up the lamina, breaking out between the hair and hoof, and terminating in a sinus called *a quittor.*

However cautiously the *operation* of shoeing may be performed, it will not always be a guard against corns, unless the *shoe* itself be of such a form as to protect the foot against any morbid change in the form of the hoof; and I have no doubt that some improved plan of shoeing might be introduced, which would be of more importance than the ordinary remedies suggested for their cure.

To remove any urgent symptoms, (if the horse is quite lame, and suppuration is supposed to have taken place,) it will be proper to pare the horn as closely as the sensible part will allow for the suppurated matter to escape; then fomentations and poultices will be necessary, with bleeding, physic, and a spare diet. As the inflammation abates, and the new horn grows out, any simple dressing may be applied.

It has sometimes been a practice to apply caustic applications, and indeed the actual cautery to corns; but such a resort rather aggravates than alleviates the symptoms. Where it has been necessary to remove much of the horn, the animal should be suffered to remain in a loose place, or be turned to grass until the horn is regenerated; or if required to work, when the injury is not serious, to have the hoof protected with a bar shoe.

There are many cases where the disease does not terminate in suppuration, and where it has not been requisite to remove much of the crust. In such cases the symptoms generally yield to the ordinary treatment of inflammation, both general and local. In all cases of lameness, however, it is to be observed, that rest in a loose place is very desirable, and in most, indispensably necessary. C.

CROPS IN GEORGIA.

Extract of a letter dated Retreat, St. Simons, Georgia, April 19, 1829.

Sir:—The spring so far has been so unusually cold that our planting operations have been exceedingly retarded. What the final influence will be upon the crop of cotton, will depend, in a great measure, on the approach of cold weather in the fall.

The culture of the sugar cane, and the making of sugar, is exciting such general and deserved attention in this part of the country and South Carolina, that any information upon the subject, would be as valuable as any thing that could be laid before the Southern Planters, in your valuable work. The process of making sugar from the beet root has been carried to great perfection in France, and would no doubt be applicable to the preparation of it from the cane juice here. The great matter to be ascertained is the exact quantity of purifying substance to be put into a given quantity of juice, of any degree of sweetness.

I am very respectfully,
A Friend
J. S. Skinner, Esq. To the American Farmer.

HORTICULTURE.

(From the Vine-Dresser's Manual.)

THE ART OF MAKING WINE.

(*Continued from page* 53.)

Of the Wine Press.

As soon as the wine is drawn off, the murk, or pumice, is to be lifted out and subjected to the press, it affords a wine nearly equal to that which has flowed freely from the vat. It is distinguished into first, second, and third qualities, according to the first, second, and third cutting of the murk. The wine produced by the first cut is the most lively, that from the third, the tartest, hardest, coarsest, and deepest in colour. The residue is kept near Montpelher for the fabrication of verdegris; in other places it is packed down, well sprinkled with bran, and dealt out as fodder for cattle; or is used as a manure for vineyards, or food for pigeons, who eat it with a sort of gluttony; others apply water to it, and draw from it beverages slightly vinous and tart, that go by the name of pricked wines.

Some make a practice of mingling the vat and press-wines together as soon as made, which is wrong; it is better to keep them apart until it is seen whether it be necessary to add the press-wine to the other to heighten its strength or colour. Otherwise there is a risk of entirely depriving the wine from the vat of all its perfume and delicacy; and also to render it hard, dull, thick, and indigestible; press-wines always being tart, harsh, and dark coloured.

When the murk is to be used for vinegar, only one turn is given to the press.

There are many sorts of presses; of the two most in use, one requires from ten to twelve men, breaks often and is slow; the other, every way less costly, requires but four men and has a greater effect than the former. But both of them cut the murk at each turn, which gives the harsh taste of the stem to the wine. A third press, called the single or double box-press (*le pressoir a coffre simple ou double;*) is the best yet invented; the wine that proceeds from the highest pressure is separated from that which flows first, because of inferior quality; but there is no cutting of the murk. The press is filled seven feet thick with the pumice, which it reduces to eighteen inches, yielding one fifteenth more wine than is obtained by any other sort of press.

Of the Wine-Cellar.

The cellar is all-important for the preservation of the wine. The best cellars are such as are dug out under uninhabited dwellings, as is seen in the districts most famous for wines; exposed to the north, and fifty or sixty French feet deep, according to the dryness or dampness of the soil. A certain constant, but not excessive humidity is necessary; if too moist, the casks rot and are apt to make the wine musty; if too dry, the staves shrink and the wine leaks out. The light should enter moderately, by openings at suitable distances; these windows should be protected by narrow pent-houses and closed when it is too hot or too cold. The ceiling of the cellar should be solidly vaulted and very thick, to prevent the shocks and pressures which it receives from being communicated to the casks below. In summer, as in winter, it is well to cover the floor above with dry rushes, straw, or any such material to prevent either violent heat or cold from extending to the cellar. The floor of the cellar should be very smooth and beaten hard; that part of it intended for the bottled wine should be sanded. The cellar should be kept clean; if too damp it should have more and larger windows; if too dry, fewer windows and those made smaller. When badly situated it is easy to shelter it from the rays of the sun by building small buttresses in front of the windows, or by stopping them with a board covered with earth, or sods, which is better.

The casks should be set perfectly horizontal on a stilling, six or seven inches high, made of square joists; and be supported with wedge-shaped pieces four inches long and three inches thick, which must be driven between the staving and joists quietly and with great care. Neither stilling nor casks should touch the wall in any place; thus fixed they are firm, and safe from rotting. If the casks lean forward, the lees are carried to the front and stop up the tap; if they incline backwards the evil is worse; when the cask must be lifted up to let the liquor run off, the whole becomes troubled. If perfectly horizontal the lees settle in the lowermost part of the side and every drop of the limpid wine runs off clear.

Garden stuff, green wood, flowers, fruit, &c. must never enter a wine-cellar. Sooner or later they are sure to sour the wine, by the exhalations that arise from them.

Of the Management of the Wine in Casks.

The wine works in the casks from the first day that it is transferred to them. If the ferment in the vat was regular and continued, the new commotion will be almost insensible, and vice versa. It is the carbonic acid gas which excites this agitation; it tends incessantly to escape, it swells the size of the liquid and makes it froth out at the bung. The casks, therefore, should not be entirely filled; a space of two inches should be left and the bung be driven in close enough to prevent the air from penetrating; the spigot-hole beside the bung should now and then be opened to allow the gas to escape; but this must not be done too often nor too freely, as it risks souring the wine. Instead of bunging tight, and opening the spigot-hole some vine dressers cover the bung-hole with folds of cloth covered with a coat of sand; others with vine leaves held down by a piece of tile. When this ferment is over, and the liquid sinks back, the casks should be filled up and bunged tight; the bung wrapped with hemp or tow, or old linen, which must be fresh and clean, as a film gathers on the bung that may be hurtful to the wine.

In some districts they fill up every day during the first month, every four days the second month, and after that every eight days until the racking off. This is the method used with the Hermitage wines, around Bordeaux: they fill up after the first week; a month after they bung the casks lightly, and fill up every week, gradually tightening the bung. In other places they fill up regularly every ten days during the first months, then once a month until the racking off. And in some they do it every two months, if the cellars are passably dry, and every three months if they are damp. The filling-up should be done in cool dry weather, and the wine employed never be of a quality inferior to that in the cask. The cellar should be visited at least once a day, so as to remedy on the spot any accident that may have taken place, through wormeaten spots in the staves, by the shaking of the casks in rolling them into the cellar; by mould on the hoops or heading from the damp; or from the shrinking of the staves. The wine also should be tasted from time to time, to observe what alterations have occurred, that they may be remedied promptly.

When the filling-up is neglected, a white mould collects on the surface of the wine. This must be attended to immediately, as the acid fermentation commences by this symptom. The air in the space must be first forced out; to effect this the nozle of a bellows is introduced at the bung and the air drawn in from every side. A lighted match is then put in, the bung closed, and the match allowed to burn; after this the cask must be entirely filled up, and then, several smart raps on it expel the bubbles of air that are lodged in crevices and drive the mould towards the bung-hole; in a few minutes a slight jolt must be given to the cask with the knees, which will make the wine at the bung run over a little, when, by blowing upon it, the film is carried down; the filling-up must be repeated, and this process tried again, until not a vestige of the mould is perceived.

The wine also works in a singular manner when the vine begins to shoot, at the time of flowering, and when the grape turns. *Buffon* attributes all this working and all the changes of the juice of the grape from the state of must to that of vinegar, to the action of organic molecules. According to *Fabbroni* and the remarks in confirmation of his by *Astier* of Toulouse, these phenomena of vegeto-animal matter are only remarked when the organic molecules have not been separated from the wine by a sufficient quantity of alcohol. "Then," says Astier, "as these elements of organization cannot remain idle while the vine is busy with growth, and as, in the vat or cask they cannot produce leaves, flowers, and fruit, they will produce something animated, vintage gnats, wine mould, or the microscopic eels of vinegar. These phenomena" he adds, "prove that life, though unapparent in the whole, subsists in the parts, though detached and separated, and preserves in spite of death, a certain relation with the general life of the species to which the individual belongs."

These phenomena may be prevented by the use of anti-fermentative substances, such as sulphuric acid, sulphate of lime, mercurial oxyds, alcohol, garlic, camphor, the cold of ice, boiling heat. The manner of using all these various means shall be spoken of hereafter.

When the fluid seems at rest, though turbid, it is complete. The turbidness is caused by the foreign substances in suspension, which, with time and quiet, sink to the bottom; when the pulp and murk, colouring matter and tartar, form the lees. The tartar separates partially and crystallizes on the sides of the casks.

Among the donations to the Philadelphia Agricultural Society, were some beautiful specimens of silk, the produce of 500 silk-worms, raised and presented by Mrs. Adams, wife of John Quincy Adams, Esq. The silk was wound by herself, without baking the cocoons. [*Litchfield Enq.*

(From the New England Farmer.)

GRUBS IN PEACH TREES.

Copy of a Letter from A. Parmentier, *to the President and members of the Horticultural Society of the city of New York.*

Horticultural Garden,
Brooklyn, L. I. Jan. 26, 1829.

Gentlemen,—As it would be desirable to know and try every possible means that can diminish the destruction of peach trees by grubs at their roots, I take the liberty to communicate all that experience among various friends and neighbors has brought to my knowledge.

In New Jersey they make use of rotten fish, put in the spring at the roots of the trees. I have seen beautiful peach trees which I was told were thus freed from worms. This remedy presents another advantage, the rotten fish being a very good manure.

A gentleman of respectability, of Brooklyn, L. I., who had purchased four peach trees from me, placed round two of them coal ashes, which were thus happily preserved. But the others suffered the ordinary depredation. The above means receive confirmation in France, and in England, where they use the soot of the same combustible, and also of wood to destroy the white grubs; the soot of these substances being very acrid. This is a convenient and easy remedy, which might be generally used, and I have adopted it for many of my trees.

Another effectual and ingenious expedient is, I understand, adopted by the Governor of Connecticut, Mr. Smith, which consists in covering the body or trunk of the tree with straw, from June until the end of August, in order to guard its surface from the deposition of eggs by the fly, which is said to cause the mischief.* I am told that by this means he has preserved all his trees to full age, and good health. This process was announced in February, last year, by my friend, Dr. Pascalis, of New York, who appears to have paid much attention to the subject, while he resided in Philadelphia. He says that the matted sheaf of straw, bound round the tree, need only extend quite down to the lower part of the trunk, because the eggs deposited are ejected out by the gum oozing from the bark, and destroyed by drying, except at some height from the earth.

It is very pernicious to use fish oil on trees, as it shuts the pores hermetically, and, preventing transpiration, is often the cause of death to the tree.

Your personal influence, and that of other members, could extend these practical and useful remedies, and, in this view of the subject I have thought it my duty to recommend them.

With great respect I remain,
Your obedient servant,
ANDRE PARMENTIER.

David Hosack, M. D., *President*
of the Hort. Soc. of New York.

RURAL ECONOMY.

(From the Philad. American Daily Advertiser.)

SALT YOUR BEES.

Mr. Poulson,—As every thing useful ought to be generally known, I herewith send you an extract from my Diary, which you may publish if you think proper so to do.

April 26.—For several days past I have found several worms under my bee hives, which had been cast forth by the bees. I find they cannot return to the hive up the wire on which the hive stands, which wire is driven firmly into the bench, that the corners of the hive may rest on it about one and a half inches above the top of the bench. The wire about the size of the small end of a pipe stem.

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* My late respected friend, Mr. Bose, Director of the King's Garden of Paris, after seeing several worms, which M. Michaux brought home from America, pronounced them to be the larvæ of the Callidia Flexuosa.

April 27.—This morn, a worthy German (name unknown,) knocked at my gate whilst I was attending on an examination of my bees. He wished to enter; I bid him do so, and presented him with my chair, as it stood on the grass, to sit on; when seated, he began to tell me, that salt was a preservative from the ravages of the worms. He then recited authorities, which I am sorry to say I could not understand, owing to my want of knowledge of the German language. I found him to be a person of general information, and determined to try the effect of salt, which I did in his presence, by putting a tea-spoonful of fine salt under each hive; the wind being fresh, much was blown away. When I returned to where he sat, he told me coarse salt would be better.

April 28.—On examination of my hives this morning, I found more worms under them than I had found the whole season before! but with this difference, not searching about to regain the hive, but completely dead! I attribute this to the effect of the salt I put under the hives yesterday, at the recommendation of my friend, the worthy German.

Francisville, near Phila. John Yatman.

Bees.—A new manual, for the proprietors of bees, has been published at Paris, by a M. Martin. It treats successively of the natural history of bees, of their maladies, of their different forms of government, and of the construction of their hives. It collects the most striking observations that have been made upon these industrious republics by preceding writers; and finishes by a summary of the principles of education which M. Martin lays down, and by a bibliography of bees. Annexed is an abridged treatise on the culture of sainfoin and buck-wheat, which M. Martin considers to be the two plants most favourable to the production of honey.

LADIES' DEPARTMENT.

(From the United States Gazette.)

We publish, this morning, a letter to a distinguished individual of Philadelphia, from a lady residing in the neighbourhood of this city, well known for her ardent piety; her unwearied exertions in the cause of religion and philanthropy, and her liberal aid to all well devised means of promoting the good of her kind, and especially of mitigating the immediate and most oppressive miseries of the unfortunate who may come within the scope of her enquiries. This is the age of noble exertions. The spirit that is abroad, must work out permanent and extensive good—lessening in an eminent degree the amount of present ills, and correcting those errors in the opinions and practices of society, that would work out future evils.

Extract of a letter from an intelligent and respectable lady of New Jersey, to the writer of the Essays on the Public Charities of Philadelphia.

"Now indeed, you are on the right road; this is the true political economy of which we have all been so long in search, and on which such volumes have been written. This is the true philosopher's stone, from which pure gold will spring. I have all along been persuaded that men never had a right understanding of the *nature* of the difficulties which surround their attempts at reformation. They never discovered where the pressure lay. In consequence of this ignorance, hospitals, prisons, tread-mills and houses of refuge have been multiplied, and charity after charity, has sprung up as palliatives. *Give women bread, clothing and shelter enough for her children, and your prisons will be turned into work shops, and your houses of refuge will be converted into schools.*

"Whatever of waste and indolence appears in the females of the upper classes, certain it is, that these vices are not the besetting sin of the poor. Poor women are always frugal and industrious; I have observed them very narrowly, and I can with confidence say, that *they are far more industrious and moral than the men of their own class. Of ten families, each one only able to afford one room as a shelter, eight of the women shall be frugal, industrious and orderly, exhibiting the strongest solicitude for the welfare of their children, while six of the men shall be worse even than incumbrances to their wives*, so that according to my estimate, and Mrs. C. will agree with me—the difference between the two sexes is as eight to four. I do not know whether in country towns, or even in the country itself, the disproportion be not more glaring. Two things produce this inferiority in the male poor. The most obvious one is the utter idleness in which they spend their evenings, particularly the long evenings of winter and the rainy and waste days; and the other is the disrespect in which they are brought up to shew to women. A drunken, lazy, selfish man of this class, will always feel that he is master, let his wife be ever so much superior; and inferior as he thinks her, he *exacts* as much of her, as if she were his equal. Many men, rich as well as poor, have this same base sentiment with respect to women. I have heard many sensible humane men reason in this way, when contending for higher wages for men. 'That men are obliged to labour out of doors in hot suns and in storms, subjected to all the evils that vicissitude of weather creates;' this is all very true, but still they live longer, and are not subject to so many petty diseases as women are. And further, 'that men cannot labour in the evening, as they are exhausted with the hard labour of the day.'—In summer this excuse may appear plausible; but is it not the case too with women? Is it not as great a labor to stand at a wash tub, and ironing table, all day, and then sew and attend to household duties in the evenings?—to white wash, clean, paint, and scrub—and worse than all—to sit from six in the morning until nine in the night at her needle, with may be three or four children around her? this woman, thus described, goes to bed as weary as her husband; but although she may and does feel equal fatigue, is her sleep as sound as his? I can answer the men, that very few women, having young children, know what a good night's rest is. It is to this cause we must look for the haggard and broken looks of so many females of the poorer classes. But in return to the main point of my argument, seeing that women labour equally with the men—that their life is of no longer duration—shewing an equality of suffering—that their necessities are as great (for I will not allow, that the clothing of a poor woman, *properly* clad, is of less cost than a man's) and that they are fifty per cent more moral and industrious than the men—they are fully entitled to an equality of wages. It is only in Cochin China, that the wages of women are equal to the men's; but there the women do all the hard labour. No rule, you know, can be laid down as a guide unless it work both ways; one *prominent* reason assigned for the disproportion of men's wages is 'that they have families to support.' Has not a woman, a widow, a family to support, and if she labours *two thirds* of 24 hours, *is she not entitled to as much as will support herself and her children?* You have struck out a new path, and you will soon get at the root of the evil. I do not know a greater service that you can render the country, than to raise the price of female labour. The very moment a woman has it in her power to feed and educate her children, that moment crime will lessen in the world."

SPORTING OLIO.

Information Wanted.

[A correspondent whose letter is post marked Cynthiana, writes under date 14th March, from which the following is extracted. The certificate is published below, but there seems about it something mysterious, since the writer does not give the *date* of his performance in a single instance. These performances appear too to be of a very *sweeping* character. At two he beat *with ease, four famous* colts! how could colts be famous at two years old! At three he *distanced* four aged horses the first heat, &c. &c.—But no dates any where—Eclipse, says Mr. Sherly, was raised *near Baltimore*, but he does not say by whom—we repeat that the case requires explanation. The most rigid proof of pedigree should be required in all cases of horses standing as thorough bred stallions, and all attempts at imposition in such cases should be visited with the utmost severity of the law and the contempt of all honourable men.]

Mr. Skinner: *Harrison Co., March* 14, 1829.

Sir,—I enclose to you a copy of the certificate of Mr. Lewis Sherly, to enable you to obtain for me the full pedigree of the horse named in his certificate, and by whom bred and raised; a horse whose performances are so notorious, and raised near your city, I should suppose that his pedigree might be easily obtained. As the above horse is now in this county, and the citizens are deeply interested in knowing the best blooded horses of our country, they are anxious that his pedigree and breeding should be fully obtained and authenticated. Sportsmen very frequently change the names of successful race-horses when moved to a distance; and the horse that won the celebrated sweepstake race at Bowling-green may not then have been called Eclipse; but the pedigree of the horse that won that race is what I wish.—Mr. L. Sherly, says, he and Mr. Watson, of Virginia, once jointly owned that horse, and the horse in this county called Eclipse, is the same horse, and that he was got by the imported Eagle; and his dam was Lauretta, and she was got by the imported Bedford.—The above information you will please forward me as early as possible.

Performances of Eclipse.—Eclipse at two years old run at Fairview, Baltimore, in company with four famous colts, he won the race with ease. At three years old I ran him at Newmarket, Hagerstown, with aged horses three mile heats, there he proved his speed; four horses started, he distanced the four the first heat; I then took him to Bowling-green and ran him two miles and repeat, he won the race without the crack of a whip. The fall he was four years old I ran him at Newmarket, Long Island, three mile heats with four famous turf horses for upwards of $500, two horses distanced the first heat, the 2d heat Eclipse distanced the field; I then took him to Bowling green and ran him in the Sweepstake race, four miles and repeat, he ran against Mr. Harrison's bay mare Yankee, Col. Johnson's horse Sir Alfred; and Lady Mag, the two first heats were dead heats, Eclipse won the third heat, lost the fourth and won the fifth, he was so exhausted when he came out that he took the cords and cramp, not being properly taken care of, the fever fell in his eyes and they looked like two balls of fire, and he remained in that condition until he lost his sight. Eclipse was raised near Baltimore, I purchased him at two years old, whilst in training, I gave $1,500 for him, and he has won me five capital races and never was beat. Lewis Sherly.

NORFOLK RACES.

Mr. Skinner: *Norfolk, May 2, 1829.*

Sir,—I am now in Norfolk, where I have gotten acquainted with your townsman, Mr. G., who is also a visitant to this place, on account of the races, now just over; and who will give you a more accurate and full account of them personally, than I may be able to do on paper; they have been quite entertaining.

The *first day* was won by Col. Wm. Wynn's Sorrel Filly, by Sir Archy, dam by Galatin—mile heats.

1st heat 1 m. 51 sec. } easy—3 years old, stakes
2d do. 1 m. 50 sec. } $300 each.

Second day was also won by Col. Wynn's Sorrel Mare, by Sir Charles, dam by Florizel—two mile heats.

1st heat 3 m. 50 sec. } Proprietor's purse, $300.
2d do. 3 m. 58 sec. }

Third day the Jockey club purse, 4 mile heats, was won by Mr. Wm. R. Johnson's bay mare, Slender, by Sir Charles; dam, Reallity, by Sir Archy; this race was finished at a single heat. Col. Wynn's bay mare, Brunett, having made a desperate effort for the heat, and finding it impossible for her to win it, afterwards was drawn; this heat was run in 7 m. 51 seconds; a beautiful heat, though thought to be won tolerably easy by Slender, $700.

Fourth day, a good race; won quite easy by Mr. Thos. Watson's bay horse, Waxey, by Sir Archy; dam by Sir Alfred—mile heats, best three in five.

1st heat 1 m. 53 sec. }
2d do. 1 m. 51 sec. } Handy Cap, $200.
3d do. 1 m. 48 sec. }

Mulatto Mary, with 8 lbs. off, was second in this race. Waxey, 4 years old, full weight, (100 lbs.) won quite easy though.

I suppose you are acquainted with her and her speed, as well as with her owner, who seems to stand beating, as a sportsman should do, without much mortification—his mare was also second, and very close for the Proprietor's purse.

Here let me take occasion to correct the error in Trumpator's pedigree, which may have proceeded from the great hurry in which I wrote you, (the mail waiting) or from some little oversight in the person setting it in type. It is the fact, that Hickory, the sire of his dam, was left out—he by Whip, &c which makes the pedigree read thus: Trumpator was gotten by Sir Solomon; his dam by Hickory, and he by the imported horse Whip, out of the imported mare Trumpetta, by Bedford. It might also be necessary to say that Mr. Epps and Mr. Washington were two gentlemen, whose particular friendship for each other induced them to buy the Arabian mare in conjunction, and not that there was a firm under that title. The horses sold were fine ones, of unquestionable stock, and will do credit to the state they are gone to.

THE FARMER.

Baltimore, Friday, May 8, 1829.

☞ The Jackson Bridge.—We have seen the model of a bridge devised by Col. Long, of the U. S. Engineers, and constructed under his direction by Mr. Mullakin, an ingenious mechanic of this city, in the employ of Messrs. Hassard & Curley.—The principles involved in its construction are similar to those of the Carrollton Viaduct, invented by the same gentleman, and of which we gave a brief notice, in the Farmer of the 2d January last.

The Jackson Bridge exhibits the utmost simplicity in the arrangement of its parts, and apparently combines the greatest economy of construction, with the greatest efficiency of the materials of which it is constituted. We were particularly gratified with the manner of splicing the string pieces, and with a system of *counter-bracing* which we never before witnessed in any structure of this sort.—The former is calculated to give to the joinings the entire strength required of the string pieces;—and the latter is intended to obviate the elasticity of the bridge and prevent it from vibrating when traversed by a carriage or horses at full speed. The attainment of these important objects appears to be strikingly exemplified in the Bridge.

The model is constructed of white pine timber, on a scale of one inch to the foot.—Its parts are connected by lock joinings, without the aid of screw bolts, except at the splicings of the string pieces. It is 220 inches long, and 30 inches wide, and consists of three longitudinal truss frames, each of which, exclusive of the arch braces, is 16 inches high. The arch braces give an additional height of 8 inches. The quantity of timber required for a full size bridge, built according to the model, with a span 220 feet long, with two carriage and two foot ways, covered, will be about one hundred thousand feet, board measure; and the quantity of iron, exclusive of spikes and nails, about 650 lbs. in screw bolts, 20 inches long and 7-8 inch in diameter. The model has sustained, without the least appearance of being overloaded, seven men, which gives for the corresponding efficiency of a full size bridge, as above, the ability to sustain at least 1000 men.

In fine we regard it as one of the most systematic, economical, and efficient specimens of Bridge architecture, that has ever been offered to the public: nor is the skill of the mechanic who executed the model, less conspicuous than the simplicity, regularity and symmetry, displayed in the arrangement of its parts.

☞ The reader may form some idea of the value of improved short-born cattle in England, and of the value of an English farmer's possessions in the article of live stock, by the following account of Mr. Champion's recent sale at Blythe—Mr. Champion is the gentleman from whom the Editor of this paper imported cattle and sheep some years since, and is, we believe, a tenant or renter of land.—The Editor of the British Farmers' Magazine says, "This important sale went off with great spirit. Our agricultural readers will no doubt be glad to know some particulars of the sales, and we have accordingly made the following calculation of the averages of the sales of short horns, for their information"—for the greater satisfaction of our readers, we give the statement in dollars and cents, instead of guineas and pounds.

	Brought from		*Average.*
23 Short-horn Cows,	$93 33 to 280 00	each.	$135 66
12 2 year old Heifers,	93 33 to 242 44	"	129 77
11 Yearling do.	70 00 to 144 88	"	89 77
10 Heifer Calves,	102 44 to 150 00	"	69 33
11 Bulls,	102 44 to 280 00	"	163 33
5 Calves,	46 66 to 140 00	"	75 22

The total of the 32 lots of Short-horns brought the sum of $11,044 11. The sales of Sheep and Horses, were made at what may be called a fair full market price; and the total of the three days' sale, may be estimated at upwards of $26,667 33. There were upwards of five hundred individuals present, among whom were Lord Althorp, Sir Tatton Sykes, Mr. Harrison, and other eminent breeders from Ireland, Mr. Christopher Mason, Mr. Wetherell, Mr. Bearley, and others.

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☞ English Markets—Fairs—(in Scotland called Trysts,) proceedings of Agricultural Societies, &c. We extract the following items from the British Farmers' Magazine, in the persuasion that they will be deemed curious and interesting—How wonderful the number of beasts, sold at these fairs—and how painful the reflection that in a country so productive of the means of human subsistence so many millions are almost destitute of their coarsest elements;—reduced to a condition, in that respect not comparable in point of ease and abundance, and freedom from bodily suffering and mental care, with the slaves of our Southern States. Take, for instance, one of the Fairs in that ill-fated country; the land of courage and hospitality, and the fine qualities that most ennoble human nature; the reader must know we mean Ireland; where so many poor people drag out a miserable existence in the greatest destitution; almost strangers to the taste of animal food.

Ballinasloe Fair, of which the following is a general return:

Sheep—sold.	
On the 6th, - - - -	52,051
7th, - - - -	35,092
8th, - - - -	934
10th, - - - -	297
Total sold, - -	86,374
Unsold, - -	11,010
Total exhibited, -	97,384
Cattle.	
Sold on the 9th, - - -	1,404
10th, - - -	172
Total sold, - -	1,576
Heifers.	
Sold on the 9th, - - -	5,885
10th, - - -	116
Total sold, - -	6,001
Calves sold on the 10th, - -	130
Horned cattle unsold, - -	3,806
Total of Horned Cattle,	11,513
Horses sold, - - - -	160
Average Prices.—Wethers.	
Tops, - - - - -	$9 88
Middle, - - - -	7 55
Cubs, - - - - -	6 66
Ewes.	
Tops, breeding, - - -	8 88
Second Class, - - -	7 11
Third Class, - - - -	6 22
Fourth Class, - - -	5 33
Oxen.	
Tops, - - - - -	62 22
Middle, - - - -	48 88
Third Class, - - - -	35 53
Heifers.	
Tops, - - - - -	62 22
Second Class, - - -	55 89
Third Class, - - - -	46 66
Fourth Class, - - -	39 99

☞ *The Great Horse Fair at Horncastle.*—Blood Horses fetched enormous prices, and in fact every description of horses, possessing shape and action, sold remarkably well. There were several foreigners in the fair, whose inquiries were principally directed towards the blood mares. A Hanoverian officer was said to be purchasing for the Duke of Cambridge, and the King's second coachman was looking out for grey horses for the Royal stud. It is no small proof of the high estimation in which the horses bred in this kingdom are held, when it is asserted, from undoubted authority, that Mr. Ellmore, a horse dealer, paid at this fair for forty horses, *four thousand and fifteen pounds;* averaging $446 11, each.

☞ *Wilton St. Giles's Great Sheep Fair,* (Sept. 12,) was held on Friday, when the number of sheep and lambs amounted to upwards of 90,000, and the greatest number ever known there. The sale was not brisk, but the prices were in general higher than at the late fair at Britford. Wethers may be quoted from $6 66 to $9 33 per head; ewes from $4 44 to $6 66; and lambs from $3 11 to $6. A lot of lambs bred by Mr. Self, of Knighton Farm, was sold for $6 22 per head; they were particularly admired for their breed, and allowed by the judges to be the best lambs brought to Wilton fair for many years. The show of rams was smaller than for several years past. There were but few horses at the fair, and those were generally of an inferior description. Cheese, which was in very short supply, produced the following prices, viz: Fine Old Somerset, from $18 22 to $19 55; second ditto, from $12 88 to $14 66; and skim, from $5 33 to $6 66. The horses, which were few and principally of the cart kind, sold at high prices.

☞ Scotland—Falkirk *trysts*, (fairs.) At the September tryst, which was held on the 8th and 9th, n unusual number of South country dealers were n attendance, who made purchases to a great exent. The number of sheep has been estimated at 0,000, and the cattle at 55,000. Little or no busiess was transacted on Monday forenoon. On Tuesay a great many sales were effected, at a small adance on Monday's prices. So large a stock of eavy Angus and Aberdeenshire cattle has seldom een seen; they alone amounted to between 5,000 nd 6,000. A number were bought by Glasgow shers Good Aberdeenshires sold at $62 22 to $66 5, or about $2 to $2 11 per 8 lbs. A lot of fortyne were sold at upwards of $88 88 a head; four ry superior animals went off at $97 77.

At the *October tryst*, the last and largest of these eat markets, the show of sheep was considerably rger than last tryst (from 90,000 to 96,000). Good ts were sold very early, and at a considerable adance above last fair. Cheviot wedders, $4 22 to 11; ewes $2 to $2 88. Black-faced wedders, $3 to $4 88; ewes $1 66 to $2 88; the average ices of Cheviots would be $5 55, and of blacked $4 83. The sale was very quick, and the hole were sold off at an advance of from 44 to 66 nts, per head, above the prices obtained at the last yst. The whole number of cattle shown was far ove last tryst, and might be stated at from 50,000 60,000. Sales were easily effected at a considerle advance on the prices obtained at last fair; there med to be a demand for every description of ck. From the number of buyers from the south, o had got their hands clear at Brough-hill fair, Tuesday fortnight, the sales were very quick, and considerable advance was the consequence. Fat d readily at from $1 55 to $1 77 per 8 lbs. Heavy gus and Fife cattle sold from $60 66 to $84; erdeen and Banff, $32 64 to $70 22. West ghlanders, three-year-olds, from $27 to $56; twor-olds, $18 66 to $46 66; and queys nearly in portion. Country beasts from $28 to $51 33. e sale was the quickest which has been seen for ny years. A great number of people were disointed, the greater part having been bought up the English dealers. There was a lot of fifty le, aged, of the pure Aberdeenshire breed, prime shown by Mr. Watson of Kirriemuir, for which eminent agriculturist in the east of Scotland, ofd $88 88 per head, being $4,444 44 for the lot, this offer was not accepted. These, we believe, e the finest cattle ever exhibited at Falkirk in lot.

Lockerby Lamb Fair.—This great annual marfor lambs, took place on Wednesday, the 13th ugust, on the well known hill in the neighbourl of Lockerby. Between 30,000 and 35,000 ps appeared on the hill; of these, nearly 10,000 isted of Mid-Cheviot wedder and ewe lambs, 2,000 half breds, 4,000 Top-Cheviot wedders, and the remainder wedder and ewe lambs.

☞ The following observations on the proper time of reaping grain, are worthy of attention. Some illustrations of the same topic, tending to the same result, it will be remembered, have been given in previous volumes of the American Farmer; but those which follow, are on another kind of grain, and the experiments appear to have been conducted more systematically, and with a view to the ascertainment of a greater variety of facts.

Reaping Potato Oats.—Several years ago the Minister of Ruthwell made some experiments, with the view of ascertaining the period in the process of ripening, at which it would be most profitable to cut down this species of grain, and about the year 1821, or 1822, a statement was published, which he had made on that subject, before the Agricultural Society of Annandale. In the year 1826, the same Rev. gentleman made another experiment with still greater accuracy than the former, which led to nearly the same conclusion. The following table gives the results of this experiment, which, we are informed, was made under very favourable circumstances, the crop having ripened equally, and the weather having remained during the whole time steady and mild. It is unnecessary to detail the means taken to measure off the lots as justly as possible, it being enough to state, that this was done with great care, and in a way to prevent any material mistake as to their quality. The conclusion to be drawn is, that the best time for reaping potato oats is three or four days before they are fully ripe. The lot cut on the 12th September, yielded very nearly as much as that cut on the 19th, but what was reaped on the 16th had the decided superiority. We would strongly recommend it to farmers, to pay greater attention than is usually done to the period of reaping their crops. Experiments on the different kinds of grain would be very desirable.

Potato Oats cut on Ruthwell Glebe, in Autumn, 1823, at different periods, to ascertain the most profitable time of reaping, with reference to the degree of ripeness.

Lots.	State of Crop.	When cut.	Weight of each lot in corn.		Weight of each lot in meal.		Weight of seeds.		Total weight of meal and seeds.	
			lbs.	oz.	lbs.	oz.	lbs.	oz.	lbs.	oz.
1.	Green.	Sept. 8.	453	0	247	0	17	8	264	8
2.	Greenish.	Sept. 12.	480	0	267	14	19	8	287	6
3.	Ripish.	Sept. 16.	511	0	284	6	26	0	310	6
4.	Ripe.	Sept. 19.	504	0	274	4	17	8	291	12

Farina obtainable from Sprouted Potatoes.—(By Sir John Sinclair.)—I always thought that some important discoveries would be made, if the public attention were generally directed to a plant possessed with such peculiar and varied properties as the potato. Among those discoveries which have occurred, perhaps the most important is one recently made by Mr. George Moir, Croft-an-righ, near the Cannongate, Edinburg. He has ascertained, that *sprouted potatoes* will produce as perfect farina, in the month of July, as they would have done in the month of December;—that the produce is equal in quantity to what the same sort of potato had formerly yielded earlier in the season, namely, 14 lbs. per cwt;—that the farina is, on the whole, more pure; and that, when the potato is ground down in a state of fermentation, the impurities are more easily separated. I lose no time in communicating this information to the public, that those who have *sprouted potatoes* may try the experiment without delay. The farina seems to be a most extraordinary production, as it is neither destroyed by frost nor by fermentation; and it has been proved, that when once made, it can be preserved in the greatest perfection for above thirty years.

A question of importance to clerical gentlemen was lately decided by the magistrates at Tiverton. A toll-collector demanded toll of the Rev. A. Boulton, when proceeding in his gig to perform service in his parish church, on the ground that the vehicle was also occupied by a gentleman who was not entitled to such exemption. Mr. B. resisted, and contended the indulgence must be a mere nullity, if the Act were so construed as to prevent a clergyman taking members of his own family or a friend with him, when proceeding to his place of worship. In this the bench coincided, and dismissed the complaint.

☞ Transplanting Cedars.—A correspondent who has experienced much disappointment in the transplanting of cedar trees, asks for information as to the proper season for the operation, and such other information as will insure success. We believe the winter season, is the proper time for transplanting all evergreens. The ground should be frozen, so that the tree may be taken up with a considerable body of it firm about the roots. We should be glad to receive proper directions for the operation.

The Flour Market.—The wagon price of Howard street flour is $6, sales from stores were made on Wednesdsy at $6.25, which appears to be the established price. The flour market is now pretty nearly exempt from foreign influence, and we may expect more steadiness in prices.

Latest Foreign News.

By the packet ship Columbia, arrived at New York, we have intelligence from London to the 31st March. The Catholic Relief bill was finally passed in the House of Commons on the 31st March, at 3 o'clock in the morning, by a majority of 178.

The Morning Post of the 31st says:—"It is to be presented to the House of Lords this day. No debate is likely to take place on the first reading. The great discussion will be reserved for the second stage of the bill, which is expected to be fixed for Friday or Monday next." The Irish Forty Shilling Freeholders' Disfranchisement bill, was also read a third time and passed.

The Duke of Wellington had a long interview on the 30th with Mr. Peel, and afterwards left town for the king's palace at Windsor, to have an audience with his majesty. The Standard of the evening of March 30, observes:—"Ministers have been in active communication from an early hour this morning. The Duke of Wellington has since his return from Windsor, been visited by most of his colleagues. The result of his interview with his majesty, has not, of course, transpired; it is, however, confidently stated to have been of a most interesting and vitally important nature. The premier sent several messengers for the lord president to attend him this morning, previous to that noble lord's arrival at his office. Rumors are to-day even more prevalent than yesterday."

The Courier, which is opposed to the Emancipation bill, admits that it will be carried in the Lords by 50 majority. We learn, through another channel, worthy of confidence, that ministers count upon a majority of 70 in the House of Peers, including 10 or 12 bishops. The second reading of the bill in the Lords, the Courier supposed might be fixed for Monday the 6th of April—the committee on Thursday the 9th—the report on the 10th—and the third reading on Monday the 13th of April; in which case the royal assent will be given before the adjournment of the house for the Easter holidays.

It is currently stated that the young Queen of Portugal is going back to Brazil, to her father.

Mr. O'Connell.—The divisions in the Committee on the Catholic Relief Bill were triumphant proofs of the certain progress of that great measure to a successful termination. One circumstance was stated which (in the opinion of the London Times,) reflects great credit on Mr. O'Connell's good sense and liberal feeling. He, it appears, had desired two honorable members to deprecate any opposition on his account to that clause of the bill which effectually excluded him from Parliament except after a fresh election. He has sacrificed his personal feelings in a very handsnme manner, content to bear an individual defeat, rather than obstruct a great public cause.

The weavers in and around Glasgow were in an increasing state of distress, and the magistrates found great difficulty in repressing the excitement among them.

From the London Price Current of March 31.

Corn.—Having again but a small supply of English wheat at market yesterday, fine dry samples were selected at an advance of 2s. per quarter; but there was no improvement in the value of middling or inferior qualities. We had a considerable arrival of Foreign during the week, a part of which had previously paid duty at the out ports; such as arrived previously to Thursday, has mostly been cleared in, at the duty then payable, but the subsequent cargoes are going under the King's lock. The French markets are improving—some rather important purchases have been made at Havre, supposed to be on account of the government, for the supply of Paris, where a want of wheat is beginning to show itself, and where prices are said to have recently advanced considerably. We quote American Flour $8 87½ *a* 9.55. The averages of the last week are, Wheat 1.66 per bushel; Rye .45¾ per bushel. Duties for the week, Wheat .40 c. per bushel; Rye .35 c. per bushel.

Tobacco.—There has been but little doing in Tobacco for some time. Those who have speculated on the expected increase of duty on stemmed, are now most anxious to sell at from 1d to 1¼d per lb. lower.—The trade appears to be well supplied, and are working stocks close in anticipation of lower prices.

LIVERPOOL COTTON MARKET.

Friday Evening, Mar. 27, 1829.

The demand for cotton has been extremely limited during the whole of the present week; and prices of American descriptions may be quoted about ⅛d lower than on this day fortnight; but there is no alteration in other sorts. The sales amount to 8,530 bags (including 500 Americans for export,) viz:—

160 S. Isl. 10¾d. to 14d.
40 Stained do. 6d. to 8.
3820 Boweds, 5¼d. to 6¼d.
500 Alab. 5¼d. to 6¼d.
1100 Orleans 5¼. to 8½d.
280 Pernam , 7¼ to 7½d.
450 Bahias, 6½d. to 7d.
400 M'hams, 6¾d. to 7d.
310 Egyptians, 7d. to 8d.
10 Demeraras, 8d.
1250 Surats, 3½d. to 4½d.
180 Carth's. 4 3-8d. to 4½d.

Owing to the prevalence of easterly winds, the imports are light,—consisting of 2747 bags from the U. States; 478 from the Brazils, and 207 from the West Indies;—total, 3432 bags.

Comparative view of the Imports of Cotton into the whole kingdom, from the 1st of January to the 21st inst., and imports at the same period last year.

Into the kingdom this year.

American	bags	125349
South American		36081
West Indies, Demerara, &c.		2124
East Indies,		7813
Egypt, Europe, &c.		370
Total of all descriptions		171737

Same period last year.

American	bags	35329
South American		33019
West Indies, Demerara, &c.		1973
East Indies,		15465
Egypt, &c.		1666—137452

Increase of Imports as compared with same period last year bags 34285

Extract of a letter, dated Liverpool, March 28th.

Flaxseed is scarce, small lot sold at 77-6. Naval stores dull. The Corn Market this day was heavy, and Wheat rather lower—Flour nominally 40s for the best.

Prices Current in Boston, May 1.

Apples, best, bbl. $2.00 a 2.50. *Beans*, white, bushel 1.00 a 1.37. *Beef*, mess, bbl. 10.00 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 8.75 a 9.00; Genesee, 8.75 a 9.00; Rye, best, —. *Grain*, Corn, bush. .63 a 65; Rye, .60 a .66; Barley .67; Oats .35 a .38. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 16.00 a 16.50; Navy, mess, 13.00 a 13.50; Cargo, No. 1, 13.00 a 13.25. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top .62 a 1.00; Lucerne, lb. .50; White Honeysuckle Clover, .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel 1.50. *Wool*, Merino, full blood, washed, .35 a .44; do. do. unwashed, .22 a .26; do. three-fourths washed, .30 *a* .35, do. half and quarter washed, .28 a .33; Native, washed .25 a .28; Pulled, Lambs', 1st sort, .37 a .41; do. do. 2d sort, .25 a .30; do. do. spinning, 1st sort. 30 a .33.

Prices Current in New York, May 2.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .10 a .12; Upland, .8¾ a .10½; Alabama, .9 a 11. *Cotton Bagging*, Hemp .19 a .21; Flax .15 a .18. *Flax*, American .8 a .9¾. *Flaxseed*, rough, tierce ——; clean ——. *Flour*, N. York, bbl. 6.37½ a 6.50; Canal 7.00 a 7.25; Baltimore Howard st. 6.87½ a 7; Richmond city mills, 6.50; country, 6.12½ a 6.25; Alexandria, 6.25 a 6.50; Fredericksburg 6.12½ a 6.25; Petersburg, 6.12½ a 6.25; Rye Flour, 3 50 a 3.75; Indian Meal, per bbl. 2.50; per hhd. 13.00 a 13.50. *Grain*, Wheat, Virginia 1.27 a 1.28; N. Carolina 1.28; Rye, North, .66; Corn, North, .54 a. 56; Barley, 55; Oats, South and North, .30 a .36; Peas, white dry 7 bu. 6.00; Beans, 7 bu. 8.00 a 8.50. *Provisions*, Beef, mess 9.50 a 10.00; prime 7.50 a 8.00; cargo 6.00; Butter, N. York, 12½ a 16; shipping, .8 a .11; Lard, .5½ a .6½; Pork, mess 12.50 a 13.00; prime 9.75 a 10.00; cargo 8.50 a 8.75; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* .2¾ a .3¼; Whiskey, rye, gall. 22½ a 23; Cider Brandy .32 a .36. *Tobacco*, Virginia .3½ a .5½ a .6½; Kentucky, .3½ a 5½ a .6½. *Wool*, Merino, American fleece, .32 a .38; Pulled, .32 a .35; common, .18 a .25.

MERINO SHEEP FOR SALE.

The Subscriber living near the Ship Tavern on the Lancaster Pike, West-Whiteland Post Office, Chester County, Pennsylvania, and twenty-five miles west of Philadelphia, will sell about forty Bucks and three hundred Ewes full-blood, Spanish and Saxony Merinoes.

This flock has been bred from some of the best imported sheep, and greatly improved, and is thought equal in quality to the best in the United States. If not sold they will be shorn early in June, and samples of their wool retained until the middle of August, by which time they will be disposed off, as I have sold my farm in Delaware county, and propose curtailing accordingly. JAMES McILVAIN.

West-Whiteland, April 27th, 1829.

ALMANAC.

1829. May.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Sets.
	H.	M.	H.	M.	H.	M.	H. M.
Saturday,...... 9	5	0	7	0	14	0	morn.
Sunday,........ 10	4	59	7	1	14	2	0 32
Monday,....... 11	4	58	7	2	14	4	1 7
Tuesday,...... 12	4	57	7	3	14	6	1 40
Wednesday,.. 13	4	56	7	4	14	8	2 9
Thursday,..... 14	4	56	7	4	14	8	2 38
Friday,......... 15	4	55	7	5	14	10	3 9

Moon, First Quarter, 10th, 2 h. 29 m. Ev.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

TOBACCO.—Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 6.00—red, 5.00 *a* 8.00—fine red, 8.00 *a* 10.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red 8.00 *a* 12.00—fine yellow 10.00 *a* 20.00—Rappahannock, 4.00 *a* 6.00—Kentucky, common 5.00 *a* 7.00—wrapping, 6.00 *a* 8.00.

FLOUR—best white wheat family, $7.50—superfine Howard street, 6.25; city mills, 5.75 *a* 6.00; Susquehanna, 6.00—CORN MEAL, bbl. 2.50—GRAIN, best red wheat, 1.20 *a* 1.30—best white do. 1.30 *a* 1.50—ord. to good, .70 *a* 1.25—CORN, .44 *a* .46—RYE, .58 *a* .63—OATS, .26 *a* .28—BEANS, 1.00 *a* 1.25—PEAS, .55 *a* .60—CLOVER SEED, 4.00 *a* 4.50—TIMOTHY, 2 *a* 2.50—ORCHARD GRASS, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—BARLEY, .45 *a* .50—FLAXSEED, 1.00—COTTON, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alabama, .10 *a* .11 Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .12—WHISKEY, hhds. 1st pf. .22 *a* .22½—in bbls. 24—WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—HEMP, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 3.25; No. 2, 2.87½ *a* 3—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—BACON, hams, Baltimore cured, new, .9½ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .29—Plaster Paris, cargo price per ton, $7.00, ground, 1.37½ bbl.—Prime Beef on the hoof, $4.50 *a* $6.00.

MARKETING.—Apples, per bushel. $2.00; Squabs, 18¾; Turkies, each, 1.25; Butter, lb. .25 *a* 37½; Eggs, .11 *a* .12½; Potatoes, Irish, bush. 1.00; Fowls, doz. 3 *a* 3.75; Ducks, 3.00 *a* 3.50; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7· Pork, .6; young Pigs, dressed, .87½; 1.00 Sausages, lb. .8; Onions, bush. .50; Beets, bush. 1.00; Turnips, bush. .25; Terrapins, 4.00 *a* 4.50 per doz; Pork, 5.50 *a* 6.00 cwt.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by JOHN D. TOY, corner of St. Paul and Market streets.

AGRICULTURE.

(From the British Farmer's Magazine.)

Observations on the Vegetable Economy of Agricultural Plants.

Sir,—A correspondent in the *British Farmers' Magazine* (p. 300, August, 1828,) says, "my object in this research is to ascertain the real cause of smut in wheat:"—if he will allow me to hazard an opinion, it perhaps may throw some light on this mysterious subject; therefore I have sent the following observations for your consideration, and should they prove worthy of notice, you are at full liberty to make what use you please of them.

Among the accomplishments that every practical agriculturist ought to possess, a knowledge of the fundamental principles of Botany deservedly claims his attention. It furnishes him with a key to the simple, yet admirable, system of order, which nature has observed in all her works—it instructs him in many truths which are important in the economy of a farm; and it is gratifying to learn that our intelligent farmers are beginning to perceive, and to appreciate, the real value of such acquirements, which will not only be a means of correcting their views of rural concerns, but will also enable them to overcome many prejudices concerning things with which they are but imperfectly acquainted.

Plants, like animals, it is well known, are subject to the law of increase; and the parts here under consideration will be confined to the reproductive organs, known by the names of the flower and fruit. My observations will chiefly relate to the structure of the flower—the uses of the various parts—the changes that they undergo during the time of flowering and fructification, as well as the various diseases to which they are subject:—these, when considered in a scientific point of view, may perhaps afford some information.

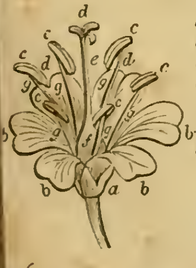
Linnæus, the prince of naturalists, in arranging the vegetable kingdom, has made use of four grand divisions; that is to say:

Classes, which resemble *Nations;*
Orders, which resemble *Tribes;*
Genera, which resemble *Families;*
Species, which resemble *Individuals.*

The characters of the classes are taken almost exclusively from the *stamina*, and those of the orders most commonly from the *pistilla*. On these distinctions the *classes* and *orders* are founded. By the resemblance of these parts and their different combinations through a number of gradations, the families of the vegetable kingdom are distinguished.

The following figure is annexed, in order to elucidate the sexual system of plants.—

THE PARTS OF A COMPLETE FLOWER



a The calyx.
b The petals of the corolla.
c The anthera.
d The stigma.
e The style.
f The germin, or seed-bud.
g The filaments.

The parts of a stamen, or male organs.
c The anther.
g The filaments.
The anther prepares and contains the pollen or fertilizing dust.

The parts of the pistillum, or female organs.
d The stigma.
e The style.
f The germin.

The parts *d, e, f*, when taken in the whole, is called the pistillum, which receives and secretes the pollen, or farina, that impregnates the germin or seed-bud.

This is called the sexual system of botany, which is founded on a discovery, that there are in vegetables, as well as in animals, *a distinction of the sexes;* and, that they propagate their species in the same manner. The most essential parts of the flower are the *stamen* and the *pistil*, which are contained within the *corolla;*—these parts constitute the beauty of the flower—the *stamen* corresponding with the *male*, and the *pistil* with the *female*, in the animal kingdom. The petals of the corolla are evidently designed by nature for the protection of the *stamen, pistil*, and *germin*, by shielding these delicate parts of the flower from external injuries. In the *germin* is produced the *seed*, which when impregnated with the pollen, or farina, is rendered fruitful.

The parts of fructification are appropriated for the natural production of the *pericarpium*, or *fruit*, that affords so many luxuries to man, and contains the seed of plants.

Some *pericarps* are pulpy, as apples, pears, plums, apricots, &c ; some are hard, as nuts, &c.; and some are scaly, as the cones of fir-trees, &c. All plants spring from seed fertilized or impregnated by the *pollen* or *farina* of the parent plant, that germinate when committed to the soil, and draw their nutriment from the earth and the atmosphere, which are necessary for their growth; so that a plant, like an animal, is an organized living being, in which various operations are continually carrying on; but the proper object of vegetable organization appears to be, to supply food to animated nature; therefore plants must be allowed to rank high in the scale of created matter; and the wisdom of Providence is in nothing more conspicuous, than in the variety, wholesomeness, and abundance of this provision.

Those plants which prove the most useful to animated nature, belong to the third class, Triandria, to which the large family of the grasses appertain—the leaves of which are food for cattle, the small seeds for birds, and the larger grain of a farinaceous quality, for the support of man; but to the twelfth class, Icosandria, chiefly belong the fruit-bearing plants of the eatable kind, so serviceable to the human race. These two classes, which are the most essential to man and the creatures under his command, are subject to various diseases, which perhaps deserve minute investigation.

From contemplating the process of nature and the generation of plants, many curious hints may be drawn which may prove highly useful to the philosophic inquirer, and throw much light upon many phenomena in the vegetable world, but perhaps in nothing more than *the smut in wheat*, the blossoms of fruit trees, and the setting of young fruit. As to the former, it has long been a subject of dispute, whether the smut be a disease inherent in the seed, produced by the soil, or an adventitious effect from the atmosphere.

To all persons acquainted with the sexual system of botany, little doubt remains that it is neither inherent in the seed, nor produced by the soil, but originates from quite a different cause; such as unkind seasons, accompanied by heavy rains at the time of blooming, which bursts the *anthera*, washes away the *farina*, and injures the parts of fructification. These causes may frequently prevent impregnation, destroy the seed, and produce smut in corn, which proves a seat for animalcula; so that the winds and the rain of midsummer too often do for our crops of grain, what fogs, heavy dews, or rain, accompanied by frosty nights and the cold blasts of spring, do for our fruit trees.

Now, the smut in wheat must be attributed to the non-impregnated corns in the ear having perished, become putrid, and produced a stinking black powder, about which so much has been said and so little understood. It is perfectly clear that the bloom on grain for the production of corn, depends as much upon the stamina and pistillum performing their functions, as the production of seed in other vegetables; hence so much depends on favourable weather when the crops of corn are in bloom.

It appears somewhat strange such various means to prevent smut in wheat should have been used, while the cause remained unknown; and I am apprehensive, that by the old custom of using strong steeps as a preventive, the vegetative principle in embryo frequently becomes injured, and sometimes wholly destroyed. This ill accords with an opinion of some of your correspondents, who think that steeps prevent the over luxuriant growth of grain; when, in fact, they will either partially or wholly destroy vegetation.

The destruction of eggs, or animalcula contained in the soil, becomes the imperious duty of every farmer, and he should use a manure which will prove detrimental to their existence. The universal compost seems, from the alkaline properties which it possesses, to be the best remedy yet known for that purpose, as the author of "A Dissertation on the Nature of Soils and the Properties of Manure" has clearly pointed out.* That these little insects (animalcula) are to be discovered in smut, no one will doubt; and many practical farmers have considered them to be the *cause* of that disease, but, in reality, they are only the *effect*—they do not exist originally in the germ, or vital principle, of the parent plant, but are produced by an adventitious effect of the atmosphere, which pretty clearly proves that the bulk of writers on this subject have mistaken the *effect* for the *cause*.

The blossoms on fruit trees become injured nearly in the same way as smut in wheat is produced; for when the germin, or seed-bud, is not fertilized on fruit-bearing plants, fructification proves immature, and the fruit drops off. This originates from the non-impregnation of the ovary, and it holds good throughout the whole system of vegetable nature—the delicate parts of the flower, that is, the *stamina* and *pistillum*, having been injured by heavy rains, accompanied with frosts, or other causes, non-impregnation is the consequence, and of course the fruit proves abortive.

I now come to notice the setting of young fruit, but this is no easy matter to discover in the early stages of its growth; if it be perfectly fertilized it will produce perfect fruit, the seed of which will vegetate; but if it be imperfectly impregnated, the fruit will not arrive at perfection—the vegetative principle will become the seat of disease, and a nursery for animalcula; consequently such fruit will prove immature, and drop off.

Such conclusions may be drawn from this inquiry as to establish facts that strengthen our opinion, and corroborate with other circumstances which prove, that diseases of this nature prevail more one year than another. Since I have become acquainted with the sexual system, every obstacle on that head seems to be removed, and leave not a doubt behind. This tempts me to hazard an opinion different from the bulk of mankind; but were they acquainted with the intercourse of the sexes of plants, on minute investigation they would assent to conviction, when a confirmation of these truths appeared.

Though this doctrine may be perfectly new, yet it is founded on incontrovertible facts; and if every accurate observer were to trace nature experimentally through all her variations, it would become acknowledged, and universally known. As a proof of what has been stated, I need only recur to certain facts that cannot be denied, that the grain of some ears perish and become smutty, while others become perfect; yet both rising from the same seed-grain. Now, if the disease which has been supposed to occasion the smut were infectious, and communicated by the seed-grain, all the ears on each stem would of course be more or less contaminated; but this is not the case, for in some are decayed grain, and others quite perfect, which will vetegate; so that the ears are composed of perfect and imperfect corn, yet they both rise from the same seed-grain, which prove, that some have been impregnated, fertilized, and will vegetate; but others, being non-impregnated, become putrid, and full of a stinking black powder called smut.

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* This interesting little work (a review of which will be found at p. 327) is published by Ridgway, in Piccadilly: it is worthy the attention of every intelligent farmer, who, as well as the landed proprietor, ought to be in possession of it.—*Ed. Br. Far. Mag.*

If these views be correct, it becomes our duty to establish such facts, and apply them to the use of agriculture; hence it is that I have invited your attention to this subject, which I am persuaded could not be fully attained without the aid afforded by natural science. J. H. B.

September, 1828.

Further Extracts from Jacobs' Report
on the
AGRICULTURE OF NORTHERN EUROPE;

Made for the sake of some things curious and some useful.

It will happen to a traveller, in pursuit of Agricultural information, even in England, and much more in countries where the business of cultivation is conducted in a much lower manner, that his attention will be invited to those properties which are best managed, where the several processes of husbandry are most sedulously performed, and where the produce is the greatest. Hence almost every writer on agricultural subjects has been led to over-rate the actual average produce of land, in the several countries which he may have visited.

Like others, I was prevailed upon to pay the closest attention to the details and face of the land of the most skilful, the most affluent, and most productive proprietors. I visited several noblemen, whose knowledge of and attention to agriculture, was fully equal to that of any men in this or any other country; and if the produce of the land was not equal to that raised by our best farmers, the difference must be attributed rather to the soil and climate, than to any deficiency either of capital, of skill, or of assiduity.

On such property the wheat sown was very insignificant, and the proportion of that grain to rye had gradually declined of late years. One nobleman, who farmed his estate of 26,000 acres, of which two thirds was tillage, and one third woodland, grew but a few acres of wheat, and of late had sold no corn of any kind. From the ports of England being shut against corn, he had turned his attention to the production of fine wool. On this estate there is a flock of 15,000 merino sheep, yielding on an average two and a half pounds of fine wool, the annual sales of which amount to one half more than the value of the sheep. Through the fine winter months, the sheep are fed with corn, chiefly rye, at the rate of one pound per day, which is estimated to be equal to three pounds of hay. The proprietor calculated that sheep thus kept yielded nearly as much more wool as, added to the benefit which the manure of the animals received from that kind of food, was equal to the price he should have received for the corn, if he had sold it; and that the profit on this system was the value of the whole of the hay, which would have been otherwise consumed. Instead of selling, he finds it more profitable to buy corn.

On the same property, the extent of land planted with potatoes, was upwards of 1,500 morgens, or about 1.000 acres, the chief part of which were used *in the distillery*, which seems an indispensable adjunct to every well-managed farm. The calculation made there, was that two bushels of potatoes yielded as much ardent spirit as one of barley; and that the residuum, after extracting the spirit, was equal in alimentary power, for the draft bullocks, which are fed with it, to two thirds of its value before the wort was extracted from it. By the process on this estate, nine bushels of potatoes are mixed with one of malt, to draw the wort, which is afterwards distilled, so as to produce a spirit containing 80 per cent. of alcohol, in which state it pays a duty (much complained of) of sixpence per gallon. It is reduced, before it is sold, till it retains 50 per cent. of alcohol; and the price charged to the retailers is about fourteen-pence per gallon.

Another person, of the same rank, who had turned his attention to the improvement of his property, boasted that his corn land already yielded near six-fold for the seed that was sown, and could be further increased. He, too, cultivated potatoes very extensively, and, by converting them into *starch* and *treacle*, made that land yield a profit, which, had it been devoted to corn, would have produced a loss. He had tried to make sugar from potatoes, and found it not advantageous; but he assured me that *treacle* paid him well, and he could afford to sell it at 18 shillings per cwt. whilst that from the West Indies cost 24 shillings. I could perceive no difference between the sweetness of this treacle and that from the tropics, but it has less consistency.

A nobleman whom I had before known, to whose hospitality I am much indebted, and whose estate I viewed in detail, took the trouble to furnish me with the course of cultivation he pursued on the property on which he resides. Though cultivated with care, and though fairly productive, I readily give credit to what he assured me,—that the whole benefit which he derived from the estate of 6,300 acres, in his joint capacity of landlord and cultivator, had not exceeded the amount for which he had sold his annual clip of the wool of his flock of 4,000 sheep.

—

Though the rate of wages is very low, not averaging more than five-pence per day, yet the day labourers who have constant employment, with a cottage, potato ground, and flax patch, are said to be somewhat better circumstanced than those persons who have been recently raised from the feudal ranks to that of freehold proprietors.

Those labourers who are boarded in the houses of their employers, have a sufficiency of food, consisting of rye bread, potatoes, of buck-wheat made into soups of various kinds; and in many instances are provided with meat, commonly bacon, twice a week.

—

In general the soil of the maritime provinces of Prussia is so light, that it may be easily ploughed with two oxen, and those of diminished size, and no great strength. I have not unfrequently seen, on the smaller portions of land, *a single cow* drawing the plough; and whilst the plough was guided by the owner, the *cow was led by his wife*.

—

The various implements of husbandry are quite of as low a description as the working cattle. The ploughs are ill constructed, with very little iron in them. The harrows are made of wood, without any iron, even for the tines or teeth. The wagons are mere planks, laid on the frame loose, and resting against upright stakes, fixed into its sides. The cattle are attached to these implements by ropes, without leather in any part of the harness. The use of the roller is scarcely known; and the clods, in preparing the fallow ground, are commonly broken to pieces by hand with wooden mallets. In sowing, the seed is carried in the apron, or the skirts of the frock of the man who scatters it on the ground.

The monied value of the live stock on the farms is low. The best flocks of Merino sheep, exclusive of the wool, are averaged to be worth about 6*s.* or 6*s.* 8*d.* per head. Cows are worth from 30*s.* to 65*s.* A dairy which I saw, of the best description, was let to a dairyman at 36*s.* per year. The owner told me, he valued them at 75*s.* per head, and thought the average weight of the butter from each, the calf being taken from the mother when ten days old, was about 120 pounds each year. The variation in the price of cows is much greater than in that of sheep, according to their race, to the soil on which they are pastured, and to the distance from large towns requiring supplies of milk and butter. The price of hay varies, according to the situation and quality, from 14*s.* to 20*s.* the ton.

—

The scale of living in the country we are considering, corresponds with the low prices of the objects in which their labour is employed. The working class of the inhabitants, amounting in the maritime provinces to upwards of a million, including both those who work for daily wages and those who cultivate their own little portion of land, cannot be compared to any class of persons in England. [But what of Ireland.] This large description of the inhabitants live in dwellings provided with few conveniences, on the lowest and coarsest food; potatoes, or rye or buck wheat, are their chief, and frequently their only food; linen, from flax of their own growth, and wool, spun by their own hands, both coarse and both worn as long as they will hold together, furnish their dress; whilst an earthen pot that will bear fire, forms one of the most valuable articles of their furniture.

As fuel is abundant, they are warmed more by close stoves than by the shelter of their wooden or mud houses covered by shingles, which admit the piercing cold of the severe weather through abundant crevices. If they have bees and a plot of *chicory*, their produce serves as a substitute for sugar and *coffee;* but too often these must be sent to market to raise the scanty pittance which the tax-gatherer demands. Though the price of whiskey is low, yet the farm produce is still lower; and neither that, nor the bad beer which is commonly brewed, can be afforded by the peasantry as an usual drink.

PUBLIC LANDS--POPULATION, &c. OF THE UNITED STATES.

[At the last session of Congress, a committee was appointed to report on the expediency of an annual distribution amongst the several states of all monies arising from the sales of the public lands.—Mr. Stevenson of Pennsylvania, the chairman of the committee, made an able report on the 25th of February—as the subject is one that concerns every citizen of the United States, we shall give some of the tabular statements, which convey much information to those who not having access to official sources, will by this means be made better acquainted with the land concerns of the nation.

The committee suggested, and the reader will acquiesce that during the last limited session, no prudent decision could be made.]

—

In conclusion, the committee will only add, that, should congress not deem it advisable, at the present time, to adopt their recommendation in relation to the public lands, they will nevertheless cherish the hope that the facts and views which they have here presented, will effectually check, in future, the *giving away* this most invaluable national property.

In conformity to the opinion of the committee, they report, for the consideration of the house, the following resolution:—

Resolved, That it is expedient to provide by law for the annual distribution amongst the states of the Union, in proportion to their respective population, the nett proceeds of the sales of all public lands.

[This Report, it will be seen, being made late in the session, was not acted upon in any way.]

No. 1.

TABLE showing the quantity in acres of land within the limits of the respective States and Territories, distinguishing what part is held by the United States.

STATE OR TERRITORY.	Whole quantity of land in each State or Territory.	Quantity of land belonging to the U. States, June 30, 1828, to which the Indian title is extinguished.	Quantity of land belonging to the United States in each State and Territ'y to which the Indian title has not been extinguished, up to June 30, 1828.
	Acres.	*Acres.*	*Acres.*
Maine, - -	20,480,000		
Massachusetts	4,992,000		
N. Hampshire	5,939,200		
Vermont - -	6,536,000		
Rhode Island -	870,400		
Connecticut -	2 991,360		
New York -	29,440,000		
New Jersey -	4,416,000		
Pennsylvania	28,-80,000		
Delaware - -	1,323,520		
Maryland - -	6,912,000		
D. Columbia -	64,000		
Virginia - -	40,960,000		
N. Carolina -	28,032,000		
S. Carolina -	19,251,200		
Georgia - -	37,120,000		
	237,607,680		
Kentucky -	24 960,000		
Tennessee -	26,432,000	3,000,000	
Mississippi -	31,074,234	11,514,517	16,885,760
Indiana - -	22,459,669	12,308,455	5,335,632
Ohio - - -	24,810,246	4,984,348	409,501
Louisiana -	31,463,040	25,364,197	
Illinois - -	35,941,902	23,575,300	6,424,640
Michigan Ter.	24,939,870	16,393,420	7,378,400
Arkansas -	28,899,520	26,770,941	
Missouri - -	39,119,019	35,263,541	
Florida - -	35,286,760	29,728,300	4,032,640
Alabama - -	34,001,226	19,769,679	9,519,066
	597,195,166	205,672,698	49,985,639
Huron Ter.*	56,804,834	- -	56,804,834
Great Western Territory†	750,000,000	- -	750,000,000
	1,404,000,000		856,790,473
Add quantity to which the Indian title is extinguished - - - -			205 672,698
Total acres belonging to the U. States -			1,06:,463,171

No. 2.—OHIO.

TABLE showing the quantity of United States' land in the State of Ohio, and the manner of its appropriation.

The whole number of acres within the limits of the State of Ohio, to which the Indian title *has* been extinguished, is		24,400,745
The whole number of acres to which the Indian title *has not* been extinguished		409,501
		24,810,246
Disposed of as follow:		
To satisfy Virginia Mil. Land war.	3,709,484	
U. States Military (revolutionary)	1,461,666	
Reserve made by Connecticut	3,267,910	
Given to the State of Ohio and individuals prior to 1828	277,897	
Do. to do. by acts of Congress, or schools, being the one thirty-sixth part of the whole land to which the Indian title is extinguished	677,465	
Sales made to the 30th June, 1828	9,025,335	
Saline reservations	23,680	
To which the Indian title has not been extinguished	409,501	
Balance of land in Ohio remaining unsold on the 30th June, 1828	4,984,348	
		24,810,246

No. 3.—INDIANA.

TABLE showing the quantity of United States' land in the State of Indiana, and the manner of its appropriation.

The whole number of acres within the limits of the State of Indiana, to which the Indian title *has* been extinguished		17,124,037
The whole number of acres to which the Indian title *has not* been extinguished		5,355,632
		22,459,669
Disposed of as follows:		
Allowed to private claims	277,274	
Donation to Canadian volunteers	64,640	
Given to the State of Indiana and individuals prior to 1828	48,640	
Do. to do. by act of March, 1827	384,000	
Do. to do. by act of Congress, for schools, being one thirty-sixth part of the whole land to which the Indian title is extinguished	475,668	
Sales made to the 30th June, 1828	3,542,320	
Saline reservations	23,040	
To which the Indian title has not been extinguished	5,335,632	
Balance of land in Indiana remaining unsold on the 30th June, 1828	12,308,455	
		22,459,669

No. 4.—ILLINOIS.

TABLE showing the quantity of United States' land in the State of Illinois, and the manner of its appropriation.

The whole number of acres within the limits of the State of Illinois, to which the Indian title *has* been extinguished, is		29,517,262
The whole number of acres to which the Indian title *has not* been extinguished		6,424,640
		35,941,902
Disposed of as follows:		
Allowed on private claims	170,904	
United States military (late war)	2,875,560	
Given to the State of Illinois and individuals, prior to 1827	50,560	
Ditto to ditto by Congress in March, 1827	480,000	
Ditto to ditto by act of Congress, for schools, being the one thirty-sixth part of *all* the lands to which the Indian title is extinguished	819,924	
Sales made to the 30th June, 1828	1,326,885	
Saline reservations	206,129	
To which the Indian title has not been extinguished	6,424,640	
Balance of land in Illinois remaining unsold on 30th June, 1828, excluding 84,500 acres of salines owned by the United States	23,575,300	
		35,941,902

No. 5.—MICHIGAN TERRITORY.

TABLE showing the quantity of United States' land in the Territory of Michigan, and the manner of its appropriation.

The whole number of acres within the limits of the territory of Michigan, to which the Indian title *has been* extinguished, is		17,561,470
The whole number of acres to which the Indian title *has not* been extinguished		7,378,400
		24,939,870
Disposed of as follows:		
Allowed to private claims	217,291	
Given to the territory and individuals	56,080	
Do. to do. do. one thirty-sixth part of all the lands, for the use of common schools	487,819	
Sales made to the 30th June, 1828	406,860	
To which the Indian title has not been extinguished	7,378,400	
Balance of land in Michigan Territory, remaining unsold on the 30th June, 1828	16,393,420	
		24,239,870

No. 6.—MISSISSIPPI.

TABLE showing the quantity of United States' land in the State of Mississippi, and the manner of its apppropriation,

The whole number of acres within the limits of the State of Mississippi, to which the Indian title *has been* extinguished		14,188,454
The whole number of acres to which the Indian title has *not been* extinguished		16,885,760
		31,074,234
Disposed of as follows:		
Allowed on private claims	581,884	
Given to Indians 20th January, 1825	2,560	
Given to the State of Mississippi for seat of Government	1,280	
Do. to do. for Seminary of learning	46,080	
Do. to do. for schools, being the one thirty-sixth part of the whole land to which the Indian title has been extinguished	394,124	
Do. to do. for Indian schools	34,560	
Sales made to the 30th June, 1828	1,613,449	
To which the Indian title has not been extinguished	16,885,760	
Balance of land in Mississippi remaining unsold on the 30th June, 1828	11,514,517	
		31,074,234

No 7.—ALABAMA.

TABLE showing the quantity of United States' land in the State of Alabama, and the manner of its appropriation.

The whole number of acres within the limits of the State of Alabama, to which the Indian title *has been* extinguished		24,482,160
The whole number of acres to which the Indian title *has not* been extinguished		9,519,066
		34,001,226
Disposed of as follows:		
Allowed to satisfy private claims	71,139	
Given to individuals and companies by Congress	116,596	
Given to the State in 1819, for a seminary of learning	46,080	
Do. to do. in 1819 and 1827	2,900	
Do. to do. by act of Congress in 1828	400,000	
Do. to do. the one thirty-sixth part of all the lands in the State, for common schools	680,060	
Salines reserved for the State	26,040	
Sales made to the 33th June, 1828	3,242,586	
Reservations and selections by Indians	110,080	
In which the Indian title has not been extinguished	9,519,066	
Balance of land in Alabama, remaining unsold on the 30th June, 1828	17,789,679	
		34,001,226

No. 8.—LOUISIANA.

TABLE showing the quantity of United States' land in the State of Louisiana, and the manner of its appropriation.

The whole number of acres within the limits of the State of Louisiana, the Indian title being extinguished to the whole		31,463,040
Disposed of as follows:		
To satisfy private claims under the French, English, and Spanish Governments, estimated not to exceed	5,000,000	
Given to the State of Louisiana for a seminary of learning by act of Congress	46,080	
Do. to do. by act of Congress, for schools, one thirty-sixth of the whole land	873,982	
Sales made to the 30th June, 1828	178,781	
Balance of land remaining unsold 30th June, 1828	25,364,197	
		31,463,010

No. 9.—MISSOURI.

TABLE showing the quantity of United States' land in the State of Missouri, and the manner of its appropriation.

The whole quantity of land in the State of Missouri has been ceded by the Indians, and is in acres		39,119,019
Disposed of as follows:		
Allowed on private claims	966,087	
U. States military (late war) located	468,960	

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* Territory of Huron, lying west of Lake Michigan, and east of the Mississippi river.

†Great Western Territory, extending from the Mississippi river to the Western ocean.

To Kanza Indians	28,040	
Given to the State of Missouri and individuals	48,530	
Given to the State of Missouri by act of Congress, for schools, being the one thirty-sixth part of the land	1,086,639	
Sales made to the 30th June, 1828	1,216,142	
Saline reservations	46,080	
Balance of land in Missouri remaining unsold on the 30th June, 1828	35,263,541	
		39,119,019

No. 10.—TERRITORY OF ARKANSAS.

TABLE showing the quantity of United States' land in the Territory of Arkansas, and the manner of its appropriation.

The whole number of acres within the limits of the Territory of Arkansas, to which the Indian title *has been* extinguished, as originally bounded, is	33,661,120
Deduct a quantity of acres lying west of the boundary, as established by the act of the 6th May, 1828	4,761,600
	28,899,520

Disposed of as follows:

Allowed to satisfy claims under Spanish and French grants	59,682	
Allowed for locating military warrants, (late war)	1,162,860	
Given for seminary of learning	46,060	
Reserved to be given to Arkansas for common schools, one thirty-sixth part of the whole	602,767	
Sales made to 30th June, 1828	57,170	
Balance of land remaining unsold on the 30th June, 1828	26,777,941	
		28,899,520

No. 11.—TERRITORY OF FLORIDA.

TABLE showing the quantity of United States' land in the Territory of Florida, and the manner of its appropriation.

The whole number of acres of land within the limits of the Territory of Florida, to which the Indian title has been extinguished, estimated at	31,254,120
The whole number of acres to which the Indian title has not been extinguished	4,032,640
	35,286,760

Disposed of as follows:

Allowed to private claims	297,167	
Given to Lafayette	23,028	
to Deaf and Dumb	23,040	
to an Academy	46,080	
to Tallahassa	640	
to Hambly and Doyle	1,280	
to Florida, one thirty-sixth part of the whole lands for use of schools	868,170	
Sales made to the 30th June, 1828	266,414	
To which the Indian title has not been extinguished	4,032,640	
Balance of land in the Territory of Florida, remaining unsold on the 30th June, 1828	29,728,300	
		35,286,760

No. 12.

TABLE showing the quantity in acres of public lands sold by the United States in the respective States and Territories; the sums received for the same, and the balances unpaid, up to June 30th, 1828.

	Acres sold.	Cash received.	Bal. unpaid.
Ohio - -	9,025,335	16,102,505 25	377,558 81
Indiana -	3,542,320	5,588,517 72	419,500 83
Illinois -	1,326,885	1,590,610 00	191,078 17
Michigan -	406,860	547,476 27	26,258 39
Mississippi -	1,613,449	1,946,143 36	375,234 74
Alabama -	3,242,586	7,274,746 24	2,653,750 00
Louisiana -	178,781	395,754 43	38,028 66
Missouri -	1,216,142	1,977,555 75	106,234 08
Arkansas -	57,170	71,605 87	
Florida -	266,414	367,848 42	
	20,877,942		
Sale of triangle to Penn.	202,187	151,640 25	
	21,078,129	36,013,403 56	4,187,643 68

No. 13.

TABLE showing the quantity of Land sold, the purchase money, amount of cash received at the Land Offices, the incidental expenses, salaries, commissions, &c. and the payments into the Treasury for each year, from January 1st, 1821, to June 30th, 1828.

YEAR.	Quantity of land sold in acres and one hundredths.	Purchase money.	Am't received for lands sold under the credit system.	Aggregate amount received at the Land Offices.	Amount of incidental expences, salaries, and commissions.	Payments by Receivers into the Treasury.
1821	780,572 82	$1,169,224 98	$330,115 71	$1,499,340 69	$86,824 04	$1,212 966 46
1822	792,840 13	1,012,785 24	837,821 38	1,650,606 63	85,930 43	1,803,581 54
1823	653,319 52	850,136 26	148,423 09	998,559 35	71,812 87	916,523 10
1824	749,323 04	953,799 03	110,890 59	1,064,689 62	74,621 56	984,418 15
1825	893,461 69	1,205,068 37	330,896 03	1,535,964 40	72,892 72	1,216,090 56
1826	847,996 76	1,127,500 41	36,397 82	1,163,898 23	111,212 65	1,393,785 09
1827	926,727 76	1,318,006 36	313,132 37	1,631,138 73	121,281 45	1,497,053 82
	7,644,241 72	7,636,520 65	2,107,676 99	9,744,197 65	624,575 72	9,021,418 72
1st & 2d qrs. 1828	341,599 75	427,110 16	2,824 54	429,934 70	47,752 14	
Aggregates,	5,985,841 47	8,063,630 81	2,110,501 53	10,174,132 35	672,327 86	

(From the New York Farmer.)

BOT FLY, OR NITTER.

By Professor Eaton, of Troy.

While preparing a Zoological Text-Book for Students, I had occasion to examine the Nitter with considerable attention in the summer of 1826. The Genus to which this fly belongs contains more than a dozen species. Two species are common about Troy, New York, and probably in all the Northern States, which I will here describe.

Class—Insecta. Order—Diptera.
Genus—Oestaus.

Generic Character.—Antennæ (horns) disjointed, very short, sunken; face broad, depressed, vesicular; mouth a simple orifice; feelers two, two jointed, sunken; tail inflexed beneath.

Equi (leg nitter) wings whitish with a black band in the middle and two dots at the tip. Deposits its eggs on the hairs of horses' legs, in the month of August. From observations made during the three last summers, I believe this species to be harmless. I do not believe the Bot is ever caused by it.

Velcrinus, (throat nitter, bot fly) wings without spots; body iron rust color; sides of the thorax and base of the abdomen furnished with white hairs. A little smaller and much more agile than the leg nitter. Deposits its eggs in the skin under the throats of horses in the month of September, and with them an acrid liquor which gives the horse the pain of a bee's sting, at the instant of contact; hence, this swift-winged species is the dread of horses.

So far, I think, I am justified in giving the natural history of this insect from personal observations. One farther trial is necessary, to complete my proposed account of it. This I have not been able to complete; and take this method to ask the aid of some of the readers of the Farmer. Whoever has an opportunity to see the Bot in the recent *feces* of a horse, should put a quantity of it into a close tin or wooden box, of the capacity of a quart or two, and keep it in a warm place, until some of the larvæ become flies. Then determine the species, by accurately comparing them with the descriptions here given. Should it prove to be the species *velcrinus*, we could safely adopt the following conclusions.

1. That the nits deposited in the skin under the throats of horses, become minute larvæ (maggots) and make their way into the passage to the stomach folds, until they are of a size to destroy that organ, unless they are passed off by some fortunate cause.

2. Should it be thus demonstrated, that the Bot is the larvæ of the throat-nitter, common sense would suggest an effectual preventive. A piece of oil cloth fastened under the throat, for three or four weeka commencing the last week in August, must be a perfect defence. AMOS EATON.

Rensselaer School, Troy, March 16, 1829.

HORTICULTURE.

(From the Vine-Dresser's Manual.)

THE ART OF MAKING WINE.

(*Continued from page* 60.)

Of Racking.

But the lees, once precipated, may mingle anew, and muddy the clarified wine; or even produce a new fermentation and injure the quality. For this reason the wine must be removed from the lees. Some rack the wine in December, if it is well cleared, and they wish to transport it; others do it only once a year in February or March. In some places the wine requires to be racked twice during the first year, once at the beginning of spring and a second time at the end of September, or towards the end of December during sharp, clear frost, and about the middle of May. Wines that are mild should be racked soonest, with harsh, hard wines it should be delayed longer. Rich high-flavoured wines may lie on the lees three and four years, and only be shifted every two years, without injury. Such are the red wines of the Marne river, and especially from the St. Thierry enclosure near Rheims. But in general, wines should be removed from the coarse lees before the spring equinox. There are, however, cases, in which the lees and wines are better left together than separated, for the sake of prolonging the fermentation and ripening the wine; but it must be done with great watchfulness; the moment the wine shows a tendency to pass to the acid degree of fermentation, it must be racked without delay and transported into a colder place; if it is turbid, it should be fined before racking. The most suitable time for the operation is fine, clear weather, especially as regards the first racking. It should never be attempted while the vine is in blossom; at that time the wine undergoes an accelerated internal ferment, and should be kept as quiet as possible.

For racking, the head of the cask must be pierced about three finger's breadths from the chine; this is done with a tap-auger large enough to make the opening at once; as soon as a drop of the liquor shows, it has pierced enough; the gimblet is withdrawn and the cock put in its place; the faucet must be turned just so far that the wine will flow through the channel without the air disturbing the surface of the liquid as it passes. As soon as the cock is fixed, the bung must be gradually lifted as gently as possible, to give entrance to the external air. When it has done running, the cask is raised by levers, and care must be taken to be sure that the raising has not made the wine turbid; if it is troubled it must not be mixed with the clear wine. This is the most general way of racking, and the most expeditious. But it is not a good method for wines that have a delicate bouquet, because they are so much exposed to the air when running from the tap, and when pouring into the funnel.

At Beaune (Cote-d'Or) the wines of which have the reputation of being the most relishing of all the wines of old Burgundy, they rack with copper taps, to which a leathern pipe is attached terminated by a wooden tube, that is slightly conical. The cask to be filled is laid on the side, and pierced on the topmost part with some small gimblet-holes; when it is filled, the holes are stopped and it is rolled over on the bung.

At Condrieu (Rhone) they rack the wine the week after it is made, and before the end of the month, they fine it, to divest it of clamminess; every fortnight or twenty days they rack it over for the space of a month or two; by this means they give it that perfectly limped clearness for which it is so remarkable. Each time it is thus racked, the cask is sulphured strongly, even more than for red wines; this increases the body of the wine. This white wine lasts from fifteen to twenty years; as it grows old it acquires the colour and taste of Malaga; its repute has been at its present height for several centuries. It is thought that the species of the grape was brought from Dalmatia; it is known by the name of *vionnier*. The Hermitage wine owes its origin to the vineyards of Condrieu.*

If the casks have to be removed three or four months after racking, it is advisable to rack them anew first, lest the deposit they have made should rise and cloud the wine, and change the taste.

Of Fining.

Wines, which are not clear after racking, contain a sediment of such divisibility, that it can only be removed by fining, and a second racking.

The most usual substances employed for this purpose, are isinglass and whites of eggs.

Isinglass must be unrolled, shred thin, and soaked in wine. It swells, softens, and then becomes a viscous jelly, which must be poured into the cask. The wine should be well beaten with a whisk, and allowed to rest. The quantity of isinglass used, is about a half ounce to every 250 or 300 gallons of wine.

Whites of eggs are preferred in the South to fish-glue; they are well beaten with wine, and poured into the cask, which is then stirred either with a wisk, made of split wood, or made of tufts of horse hair fixed to an iron handle. The wine is left to rest for ten days or a fortnight, and then racked in a North-wind. From six to ten eggs are required for every twenty-five gallons of wine, according to the paleness or depth of the colour. Some farmers make use of gum arabic in powder; others of hartshorn shavings, calcined ground flints, starch, rice, milk, beech-wood chips boiled in water, and sun or oven dried. But none of these substances produce as well or as quickly the results obtained by fish-glue or white of eggs.

There is a reddish-brown powder which is sold at a very high price, for the clarifying of wines; but it is nothing more than dried blood. It only acts through the albumen contained in blood; and a couple of eggs would have the same efficacy, without altering the bouquet of the fine wines, by the fetid, glue-like odour of the dissolved dried blood. The gelatine of bones is still worse than blood. Common and new wines lose a portion of their rawness by fining; good wines require more subtilty of relish and appearance.

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* It is related that an inhabitant of Condrieu having turned hermit, he built himself a cell on an uncultivated sterile mountain, in the neighbourhood of *Tain*, and employed his leisure hours in breaking to pieces the rocks around his dwelling. Having planted slips from Condrieu they succeeded perfectly. His example excited emulation, and valuable vineyards soon covered the stony sides of the mountain, from which the Hermitage wines are still raised.

Infusion of Walnut Leaves to Destroy Insects.

It appears by a late communication to the London Horticultural Society, by Sir Charles M. L. Monck, Bart., that worms which infested plants in pots were destroyed by a pint of an infusion of walnut leaves given to each pot. The worms quickly emerged from the mould to the surface, and were removed. This treatment was repeated in the following week, when a few more worms were extracted; the plants which had been sickly, after this application resumed their health and blossomed strongly. This success induced Sir Charles to try the experiment on orange trees, and other plants in pots, and it was attended with equal success. He thinks that the infusion is beneficial, not only in destroying the worms, but that it acts also as a manure. The infusion is made by pouring boiling water on fresh walnut leaves; which having stood till cold, is ready for use.

LADIES' DEPARTMENT.

(From the Christian Journal.)

FEMALE ACCOMPLISHMENTS.

If a woman be as beautiful as one of those celestial beings, with whom the vivid dreams of imagination have peopled Mahomet's paradise, as lovely and fresh as the fabled Aurora, and as light and as graceful as Hebe, yet if she does not unite to the external charms of her person, the refined accomplishments and sublime sentiments of an elegant mind, she can never enchain the heart of her husband with those golden fetters which only death can sever. Sweetness of disposition, and intellectual endowments wreathe those fetters with the ever blooming roses of enjoyment, and call forth into action all the tender charities which irradiate the sphere of connubial happiness. A woman may shine in mechanical accomplishment, though a ray of mental light does not dawn upon her mind; she may paint, sing, and play upon musical instruments, and by those manual vocal arts, gain a transient triumph over those who are contented with female cultivation hanging on walls, or hearing it vibrate upon strings.—But the man of discernment feels that a woman thus gifted, can only amuse for an hour, and attract by her adscititious donations, some frippery fops, who, like the stupid butterflies, light on exotic flowers, without fragrance or perfume, rather than on the odoriferous blossoms that yield delicous honey. The looks of a stupid beauty, "who has not soul within her eyes," are fixed in the dead calm of insensibility; they emit no electric spark to kindle the affections--so that they are examined without emotion, and as they do not express passion or intellect, they are beheld without love.

In the winter of life, when the gaudy flowers of personal beauty are nipped by the "rude breathing" of age; when the lustre of the blue eye is dimmed, and the bloom of rosy cheeks fled, how fallen then will be the unmarried who has no resources in the treasury of mind; she will remain a tyrant without power, a prey to envy and remorse. A woman of intellectual accomplishment, on the contrary, in the evening of life, will draw at the fountain of the graces the limpid balsam of literary knowledge--diffuse the pleasure of instruction to her children, and illuminate by her cheerful conversation all who are circled within the attractive sphere of the society in which she moves. Beauty is as fleeting and as fragile as the bloom of an exotic flower, blown under the chilling influence of a northern breeze; education alone is the towering oak that defies the tempest of years.

The most inestimable blessing which the benign bounty of the Creator has bestowed upon man, is the possession of a virtuous, amiable and educated woman—her love is the highest delight which gladdens him in the vale of suffering; it is a green basis that spreads for him its grassy verdure on the desert of despair. In the possession of a lovely, sympathetic woman, even in the solitudes of life, only illuminated by her smiles, the soul is more gratified than upon the throne of Napoleon, when the world honored him with its homage, and was dazzled by the lustre of its glory.

Though Rousseau threw enchantments over the tender passions, though Byron and Ossian transfused the most sublime and profound sensibility into love, yet they never experienced those fine feelings of which the pure heart of woman is susceptible.—It is the fountain from which piety and ardent affections gush in a spontaneous and flowing union. It is in the midst of distress and anguish, that the finest qualities of the female, and the noblest traits of the female character, are displayed in all their characteristic grandeur. When a husband is suffering under the pressure of unutterable woe, when his prospects are withered by the dissolved illusions of *hope*, and the cruel desertion of friends, it is then that the consolations of a wife pour the balm of sympathy into the corroded bosom of grief. Adversity only gives an additional impulse of ardor to her attachment, it seems to inspire her with a spirit of devotedness to the object of her love, which rises superior to the afflictions of misfortune. No changes or chances can estrange constancy, or subdue the intensity of her devotion.

Died.—In Talbot county on Thursday the 7th inst. Mrs. Sarah Martin, wife of Nicholas Martin.

When death has removed the virtuous beyond the sphere of human action—when the heart that once quickly responded to the voice of affection, and the hand that promptly opened at every call of charity, are buried in the silence of the tomb; it may yet comport with the good of society to pay a brief tribute of respect to the moral worth of the deceased. She whose name is here written in sadness of spirit, was herself amongst the most uniformly even tempered and cheerful of her sex. Animated by a never failing consciousness of rectitude, and losing no opportunity of doing good, especially to those whom unequal fortune had made her inferiors in rank and condition; her happiness seemed never to be disturbed by the suspicion of evil thoughts in others, or the apprehension of ill to herself. On the worst actions she was ever ready to place the most charitable construction, and as she never wished, so she never spoke to the prejudice of the rich or the poor, the weak or the powerful.

We may say of the dead, what we would not to the living, yet it is, as we believe, true as the light of heaven, that it never shone on a woman of more benevolent feelings, nor on one whose actions more nearly fulfilled the command, to "*do unto others as you would they should do unto you.*" To her afflicted husband she was as another self; so perfectly was her happiness identified with his, and the patience and fidelity with which she fulfilled other relations, gave full assurance that in her new career of maternal duties, she would have united the claims of an exemplary mother, to those of a kind mistress, and an irreproachable wife; thus adding another gem to the crown of glory which is in heaven reserved for the good woman and the pious christian.

Saying any thing, we could not say less of *such* a friend, and though friendship has guided the pen, it has not drawn it an iota from the line of truth—why even *could* "flattery soothe the dull cold ear of death;" should we stoop to flatter in the grave, her who was herself the worshipper and the soul of truth?

S.

SPORTING OLIO.

SPORTS OF THE TURF.

New Market Races.—The races over the New Market course commenced on Tuesday last.

First day, for the produce Sweepstakes, four years old colts and fillies, one mile out, $100 entrance, half forfeit, and seven subscribers; there were but three entries, viz:—W. R. Johnson's filly, Mr. Todd's do. and Mr. Harrison's colt. The race was won by Mr Johnson's filly—Time, 2m. 3 sec.

Second day, Proprietor's purse, $300 entrance, two mile heats; four entries, viz.—S. B. Jeter's Pioneer, by Sir Charles; J. J. Harrison's Corporal Trim, by Sir Archy; Thomas Branch's Polly Hopkins, by Virginian; Wm. R. Johnson's Star, by Virginian. The purse was taken by Star, in two heats, to the disappointment of the "knowing ones"—Polly Hopkins being the favorite at starting.

Judges Award:

Star, - - - -	1	1
Polly Hopkins, - - -	2	2
Corporal Trim, - -	3	3
Pioneer, - - - -	4	4

Time—First heat 3m. 54s.—Second heat 3m. 55s.

Third day, Jockey Club purse, $650, four mile heats. This race was won by Mr. Johnson's Slender in two heats, beating Mr. Selden's Kate Kearney, and Mr. Burwell's Hippona.

Slender, - - -	1	1
Kate Kearney, - - -	2	2
Hippona, - - -	dist.	

Time of Running.—1st heat, 8m. 5s.; 2d do. 8m. 10 seconds.

Norfolk Races.—In our last we gave an account of the Norfolk races, furnished by a correspondent. As the writer omitted the names of some of the horses, we now supply them.

First day, best two in three.

Col. Wynn's Polly Jones, - -	1	1
Col. Johnson's Silver Tail, - - -	2	2
Mr. Garrison's Malvina, - - -	dist.	

Time—1st heat, 1m. 50s.; 2d do. 1 m. 51s.

Second day, Proprietor's purse, 2 mile heats.

Col. Wynn's Yankey Maid, - -	1	1
Mr. Garrison's Cock Robin, - - -	2	3
Mr. Godman's Mulatto Mary, - -	3	2
Mr. Goode's Calliope, - - -	dist.	

Time—1st heat, 3m. 50s; 2d do. 3m. 57s.

Third day, Jockey club purse, $700. The following horses started, Col Johnson's bay mare, Slender, Col. Wynn's bay mare, Brunette; Mr. Booker's bay mare, Virginia Brown, and Mr. Burwell's bay horse, Shenandoah.

Virginia Brown was distanced the 2d mile, Shenandoah the 3d, Slender about 2 lengths a head. Brunette being now withdrawn, Slender took the purse.

Fourth day, best three in five.

Mr. Watson's Waxey, - - -	1	1	1
Mr. Booker's Virginia Brown, - -	2	3	3
Mr. Godman's Mulatto Mary, -	3	2	2

Time—1st heat, 1m. 51s.; 2d do. 1 53; 3d do. 1m. 47 seconds.

TIMOLEON.

Mr. Skinner: *Davidson Co. Tenn. April 10, 1829.*

I have been conversant with blood stock from early infancy, till the present day, when I am rather on the wrong side of the hill, without any diminution of my partiality for fine horses. If there be a parade of these animals in any reasonable distance, I attend; and if there be one of a grade, that his owner will not risk abroad, I make it a point to see him. Prompted by this feeling, I went a few days since, though I had seen him some years ago, to renew my acquaintance with Timoleon, now standing on the race course below Nashville, where I found him in good health and condition, the fire of his eye nothing abated. I am aware of what has been said of him in your useful journal, as appropriate probably, perhaps more so, than any thing I can say, and shall therefore content myself with the remark, "that take him for all in all" he has, to my notion, more of power and running form, than any horse I have seen, either English or Virginian, and that his stock in the west (particularly Col. Camp's Vanity, and Moore's Colt) is sustaining the high reputation won in the east, by Washington and Sally Walker.

Timoleon's performances, it seems to me, are of the first order, and I am surprised they have not heretofore been communicated for the American Farmer, in which they would acquire permanence and notoriety, and be rescued from the casualty and oblivion of hand-bills and manuscript certificates. Believing that any thing of excellence, in which the agriculturists of the country are interested, will receive your countenance, I have, to avoid the errors of printing from an indifferent chirography, inclosed his racing exploits, taken from the publication in 1827. I have no question of its accuracy, and nothing can be more satisfactory, than the statements of those distinguished sportsmen. Panton.

Performance.—I, James J. Harrison, do hereby certify that I trained and run Mr. Robert R. Johnson's sorrel horse Timoleon, in the spring 1816, at New-Market, mile heats, six subscribers, $100 entrance, which he won at two heats with uncommon ease, beating Col. Alexander's Sambo, Mr. Forrest's grey filly, Fair Rosamond, and Mr. Jones's Eagle colt; first heat in 1 m. 47 s; second heat in 1 m. 48 s. in which heat he distanced the field. The morning before this race, at sunrise, he run a match race, one half mile, for $100, against Mr. John Worsham's Potomac colt, which he won with great ease. Timoleon was then sold to Mr. Wynne for $2500. Given under my hand. James J. Harrison.

I, William Wynne, do hereby certify that I trained Timoleon the following races, viz: In the fall 1816, he won the first heat in the Post Stake at New-Market, two mile heats, six subscribers, $200 each; first hard in hand, 70 or 80 yards ahead, in 3 m. 47 s.; second and third heats Reality beat him for the want of strength in the rider; second heat in 3 m. 48 s; and third heat in 3 m. 49 s., beating Mr. Drummond's Coquette, Mr. Worsham's lady Richmond, and Mr. Forrest's grey filly Fair Rosamond; and received forfeit from Mr. Harrison's colt Lawrence. The next week he walked over the Belfield course for the Proprietor's Purse, $250, two mile heats; and the same fall he won the Jockey Club Purse at Tarborough, $400, two mile heats, beating the famous mare Lady Lightfoot and Mr. Bullock's horse. In February, 1817, he won the sweepstakes over the Charleston course, two mile heats; four subscribers, $200 each, winning the two first heats in great style, beating Mr. Singleton's filly Blank, Mr. Sparrow's colt, and Mr. Avery's colt from Georgia; four days afterwards he won the Proprietor's Purse, three mile heats, hard in hand, at two heats, beating Mr. Singleton's filly Blank, Mr. Richardson's horse Lycurgos, Mr. Watson's black eyed Susan, Mr. Cooper's Bedford horse, and Mr. Taylor's mare. The 7th day of May following, after travelling from Charleston, getting home the 20th day of March, he won the Jockey Club Purse at New Market, four mile heats, beating Col Allen's famous mare Reality, hard in hand, at two heats, when the course was considered deeper from excessive wet weather than it was ever known before or since; this was considered the best four mile race that was ever run over the course. Time—the first heat in 8 m. 4s.; and second heat in 8 m. 4½ s. In September, 1817, he won the Jockey Club Purse at Warrenton, three mile heats, beating Mr. Drummond's bay horse Harwood, and Mr. Worsham's Optimus, with uncommon ease. At this race I sold him to Mr Robert R. Johnson for $1100, and in ten days I offered him at the rates of $5000 for him back, as I did then believe he was superior to any race horse that ever turned a gravel on any course in the United States. Given under my hand. William Wynne.

I, Robert R. Johnson, do hereby certify, that I trained and run Timoleon the following races, after I purchased him, viz: In the fall 1817, I run him at New-Market three mile heats, against Mr. Worsham's Florizel mare for the Proprietor's Purse $300, which he distanced the first heat. The following week he walked over the Belfield course for the Jockey Club Purse $530, when there was a dozen race nags on the ground. The following week he walked over the Halifax course for the Jockey Club Purse $800. The following week he walked over the Scotland Neck course, four mile heats, for the Jockey Club Purse $400. In January, 1818, I travelled him to Charleston, and he was taken with the distemper very bad—I run him for the Proprietor's Purse two mile heats, for $500, which he won with ease, beating Mr. Cobb's mare Vanity. On the following day I started him three mile heats against Mr. Richardson's mare Transport, who beat him owing to his being so weak that he choaked in running a mile and a quarter, when I ordered him to be stopped. It was with great difficulty I got him home. In the fall 1818, I trained him, and a few days before the Warrenton races, he run away with the boy and let down in one of his legs and was not able to walk off the track. I have no interest in the horse Timoleon, but it is justice to say what I think. There is no doubt but he is the best race horse that ever run in the state of Virginia, North Carolina or South Carolina, which is as far as I am acquainted with. In the fall of 1819, I sold Timoleon to Colonel David Dancy, for $4300; and a number of my friends thought I had made a great sale, but I have never seen the day I would not have made the bargain void. Given under my hand. Rob't R. Johnson.

Petersburg, Va., Oct. 3, 1819.

Dear Sir:—I find that you are likely to take your horse Timoleon to the western country; if this should be the case, I hope most earnestly he may do as well as his real merit as a race horse deserves. I have seen him run all the races in Virginia he ever run—his performance from one to four mile heats has been such as would do credit to the best runner in either this country or Europe; and his style of going, the most superior action—his size and blood entitle him to rank first rate as a stallion. I never saw but one of his colts, which foaled at my father's. This colt would have done credit to a horse that covered 100 mares; indeed, out of 100, it would be difficult to select one his equal; and I would as soon this day enter it in a stake of from 100 to 500 dollars, each, as to select from the season of any covering horse, no matter how many mares he had put to him. Your most obd't. William R. Johnson.

Col. David Dancy.

Obituary of Stallions.

Pacolet died, Sumner Co. Tenn.	October,	1825.
Oscar, do. do do.	November,	1825.
Constitution died, Bedford do.	Summer,	1827.

P.

The portrait of the American phenomenon, Tom Thumb, drawn expressly for the proprietor, by Mr. J. F. Jones, and engraved by Knight, has just been published, as will be seen by an advertisement in another part of our Journal. The action of the horse is extremely spirited and faithful to nature, and does great credit both to the painter and engraver. [*English paper.*

(From Bell's Life in London.)

GRAND STEEPLE CHASE.

The following are additional particulars of the interesting race, of which we last week (March 21,) gave the result:—It was for a sweepstakes of ten sovs. each, with fifty added by Sir Francis Mackenzie, to go four miles over the country, carrying thirteen stone. The starting post was at Nosely Wood, and the Winning Post in a field close to Billesdon Coplow. The following seven horses started at four o'clock in the evening:

Mr. Wormall's *Magic*, *ridden by*	*Mr. F. Nicholson*.
Captain Ross's m. *Polecat*,	*Capt. Ross*.
Captain Ross's *Clinker*,	*Mr. Heycock*.
Sir F. Mackenzie's *Spartarus*,	*Mr. Gulford*.
Mr. Maxse's *King of the Valley*,	*Dick Christian*.
Mr. Patrick's *Lazy Bet*,	*Mr. Wright*.
Mr. Barclay's *Bantam*,	*Mr. Beech*.

The betting was 3 to 1 and 5 to 2 against Clinker, and even betting Captain Ross's two against the field; 6 to 1 against Lazy Bet, and long odds against any of the others. Every rising ground was covered with people in carriages, on horseback, and on foot; and it is calculated there were 30,000 persons present. At the word "off" being given, the gallant Captain took the lead at a killing pace, on his mare Polecat, which he maintained in fine style for about a mile and a half, and appeared to be winning easy, when in clearing a thick hedge, his stirrup caught in a grower and was pulled off; he continued the struggle for half a mile further, but was obliged to pull up. Clinker, as soon as the Captain's accident happened, came in front, took the lead, and never was headed until within 150 yards of the winning post, when he made a mistake at the last fence but one, and came on his knees, and his rider being quite exhausted, fell to the ground, and the bridle came off. Mr. Wormall's Magic; and Me. Patrick's Lazy Bet, were about sixty yards behind Clinker when he fell, and there was a severe race between these two; they charged the last fence abreast, when the mare fell, dead beat, and the sweepstakes was won by Magic. Mr. Nicholson rode him with great judgment, and kept a line more to the left than the others, by which he avoided some distressing hills. Mr. Maxse's King of the Valley was beat about twenty yards. The fences were very large, including two yawning brooks, at the last of which Clinker and King of the Valley, having taken it at an angle, cleared twelve yards, the largest leap ever known to have been taken. Out of the seven who started, six had falls at some period or another of the race. All the fashionables were present of whom Melton has to boast—the Ladies Plymouth, Darlington, Brudenel, and Wilton, Mrs. Bulkeley, Williams, and the two Honourable Misses Arden. Of course all the gentlemen of the Melton Hunt were assembled, and the top of every hill the racer had to pass over was crowded with spectators both male and female. We understand Sir Harry Goodrich (who named the winning horse,) with his usual munificence, presented the whole of the sweepstakes to Mr. Field Nicholson, who rode the winning horse. Sir Henry Goodrich entertained a large party at dinner in the evening.

Second Steeple Chase.

We understand another match will shortly take place between the winner of the above race, and Captain Ross's Clinker. We have not heard the sum to be run for; the distance will be four miles, to carry 13 stone. Me. Nicholson will again ride Magic, and Mr. Christian, Clinker.

To Prevent Wounds from Mortifying.

Sprinkle sugar on them. The Turks wash fresh wounds with wine, and sprinkle sugar on them. Obstinate ulcers may be cured with sugar dissolved in a strong decoction of walnut leaves.

MISCELLANEOUS.

THE NEST OF AN OSTRICH,

Found in South Africa, by Mr. Broodbent, a Missionary.

The eggs were forty-two in number, including the two which had been taken away before, and were arranged with great apparent exactness. Sixteen were close together in the middle of the nest; and on these the ostrich was sitting when we arrived: they were as many as she could cover.—The remaining twenty-six were placed very uniformly in a circle, about three or four feet from those in the middle. The eggs which were in the circle we found to be quite fresh, at which I expressed my surprise. The *Hottentots* informed me that these had been provided by the ostrich against the hatching of those in the middle, when she would break them, one after another, and give them to her young ones for food, and that by the time they were disposed of in this manner, the young ostriches would be able to go abroad with their mother, and provide for themselves such things at the desert afforded.

I have seen large flocks of these creatures in South Africa.—The fact which I have just stated, relative to the preservation of a quantity of eggs for the subsistence of the young ones immediately after they are hatched, affords as striking an illustration of a superintending Providence, perhaps, as the whole circle of natural history affords.

PHYSIOLOGY OF THE EAR.

The manner in which hearing takes place may be thus simply explained:—The rays emanating from a sonorous body are directed to the ear, where they become concentrated; and in this concentrated state they pass along the external auditory foramen to the membrana tympani, on which they excite a vibration; this vibration of the tympanum is communicated to the malleus, in immediate contact with it, the action of the malleus conveys them to the incus, and the latter again to the os urbiculare, whence they next reach the stapes. The basis of this last bone is extended within the vestibulum, in that part where, placed as a centre, it faces the common channel of the membranous semi-circular canals, as well as the orifice of the scala vestibuli: in consequence of this situation, the vibrations on the stapes are extended to the water of the labyrinth, and the undulations directed from this part strike first the alveus communis, and are next extended throughout the liquor of the labyrinth, surrounding the membranous semi-circular canals, agitating by their undulations their whole surface, and this of course, affects the nervous expansion spreading over all those parts. One scala of the cochlea opens into the vestibulum, and the other begins from the fenestra ovalis; and being both filled with the water of the labyrinth, and communicating with each other at the apex of the cochlea, the sonorous vibrations are in this manner communicated also to the scala of the cochlea; besides this, between the scala of the cochlea, in a middle point, is placed the zona mollis, where the nerve is also extended, and the sonorous undulations take place. It is by these varied actions of the different parts on the auditory nerves that the latter is enabled to convey the vibrations to the mind.—*From Mr. Curtis's Lecture on the Ear, delivered at the Royal Institution of Great Britain.*

ROCK OIL.

The Louisville Advertiser mentions that a fountain of Petroleum or Rock Oil, has been discovered in Cumberland county. Some persons were engaged in boring through a rock for salt water. On getting to the depth of 130 feet the auger was withdrawn and the oil rushed upwards, rising to the height of 12 or 14 feet above the surface of the ground. It discharged at the rate of 75 gallons per minute, and formed a stream which ran into Cumberland River, and overspread a considerable portion of its surface for many miles below. The oil ignites freely and burns brilliantly. The Louisville paper speculates on the magnificent appearance it would make on the river if set on fire. An abundant supply of salt water has been obtained in the neighborhood by boring to the depth of 200 feet. The supply thus obtained rises about 25 feet above the ordinary level of Cumberland river.

RECIPES.

CURE FOR TOOTH ACHE, IN MEXICO.

The application of spirits in the ear, is practiced in Mexico, as a constant and specific remedy for the most violent pains in the head, especially those arising from the tooth ache. It is inserted by a syringe, or more frequently by the operator, into the ear opposite to that side of the face where the pain lies, and is suffered to remain in till the pain leaves the patient, which it is said to do in the course of two or three minutes; the whole effect being doubtlessly produced by what is called counteraction.—The sensation to the patient is by no means distressing; it resembles the whizzing experienced on the immersion of the head under water, but is more astounding. The mode of operation is this: the patient lies down on the side on which the pain is seated, and the spirit is poured into the ear which is uppermost.

TREATING WOUNDS FROM RABID ANIMALS.

The use of the chlorurets in treating wounds from rabid animals is now becoming general in France and Germany, and many satisfactory cases are recorded. M. Schoenberg, a German surgeon, states, that of three persons who were bitten by a dog, two used the chloruret of lime, and recovered from their wounds, whilst the third, who refused to submit to the treatment, died raving mad. This gentleman applies to the wounds twice a day a piece of lint dipped in a solution of the chloruret, and orders his patients to take, three times a day, from 2 drachms to 1 oz. of the chloruret in water.

CHOPPED OR SORE LIPS,

May be healed by the frequent application of honey water, and protecting them from the influence of cold air.

THE FARMER.

Baltimore, Friday, May 15, 1829.

Baltimore Flour Market.—An improvement of fifty cents in a barrel has taken place in the wagon price of Howard street flour since our last. It is now $6 50. Although there appears to be no other cause for this advance than the lateness of the season, the opinion is prevalent that it will be sustained. We can hear of but few sales from stores, and those not such as to indicate established rates. We quote at $6.75, nominal.

Maryland Tobacco, of the best quality, is quite brisk—good red $6 50; a pretty large crop from near Upper Marlboro' sold for $7 50, round—a few scattering hogsheads from Ohio for $25 to $30—we saw a crop under inspection, from Allegany County, red, of superior quality, that would probably sell for $11 or $12—it costs $1 12½ per cwt. to transport it here, until the Rail-road shall have reached Cumberland; when it will be brought "*according to law*," for about 26 cents per hundred, or $2 60 per hogshead. The black Maryland Tobacco, which, owing to late planting, constitutes a great portion of the last crop, is very dull.

Latest Foreign News.

By the ship Canada, Captain Grahame, Liverpool papers to the 17th, and London to the 16th, have been received at New York.

The Catholic Bill and the Disfranchisement Bill have both passed the British Parliament.—The former was carried by a majority of 104 in the House of Peers on the 10th, and received the royal signature on the following day.

When this information was communicated to the House of Commons, it is said it was received with the loudest and most enthusiastic cheering ever heard within the walls of Parliament.

The Russian Ambassador had been assassinated in Persia. The Russian and Turkish war recommenced in the latter end of February, by a demonstration by the Turks on Varna.

A London correspondent of the Liverpool Mercury, under date of April 15, says: "The report gains ground that England intends to oppose some decisive measures to the ambitious designs of Russia, in consequence of recent information, and the Cabinet council summoned for this afternoon, in this city, was supposed to relate to the subject."

The same correspondent thinks the government will have to resort to coercive measures to keep the unemployed weavers quiet.

The London Sun of April 11, says the Russians and Turks may continue their preparations for war, but they will not we think have recourse to immediate hostilities, when it is known that England and France are disposed—nay resolved—to maintain peace in the East of Europe.

Earthquake in Spain.—Letters from Spain are full of details of the effects of a late Earthquake. The towns off Guardamar, Torrevieja, Almoradi, and Los Dolores, have been entirely ruined. Four hundred and seventy bodies had been dug out of the ruins of Almetradi. Mineral springs have been removed to the distance of six miles from the place where their sources originally were. The river Segura, which flowed through the city of Murcia, has changed its course and its mouth. Four great craters are opened at Benejuzar, and emit lava and infectious exhalations. Two other craters, opened at the place where Torreviejo was built, pour forth torrents of fœtid water.

The letters from Lisbon via Paris, to the 28th ult. confirm, the previous accounts of the atrocious conduct of Don Miguel to his sister, the late regent,—and add, that several bishops have been arrested by his orders. The ministers of war and marine are said to have sent in their resignations.

New Pope.—Cardinal Castiglione was elected Pope by the Conclave, and declared on the 31st of March. He is 68 years of age, and will bear the title of Pius 8th.

According to letters from Smyrna, the Russian fleet is about to blockade the ports of Candia, as well as the Dardanelles.

A letter from Jassy, of the 18th ult. states that Jussuf Pacha, late Lieutenant-Governor of Varna, is no more.

Liverpool, April 15.—There has been a fair steady demand for cotton this week, and the sales of all descriptions amount to 10,470 bales, viz. 60 Sea Island, at 9½ a 10¾; 30 Stained, 6 a 7; 6,020 Upland, 5 1-8 a 6 1-6; 860 Orleans, 5¾ a 7; 1,210 Alabama 5 a 5¾; 1,850 Brazil, 6 a 8; 150 W. India, 4½ a 6¾; 230 Egyptian 6¾ a 7.

The import of the week is 57,671; 47,080 from the United States.

The grain market continues extremely dull, and lower prices accepted for wheat. For flour and Indian corn the demand is very partial; the continental markets have not been affected by the late fall in bread stuff here. Tobacco.—the business has been very trifling, but at former prices

Prices Current in New York, May 9.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .10 a .12; Upland, .8¾ a .10½; Alabama, .9 a 11. *Cotton Bagging*, Hemp .19 a .21; Flax .15 a .18. *Flax*, American .8 a .9¾. *Flaxseed*, rough, tierce ——; clean ——. *Flour*, N. York, bbl. 6.37½ a 6.50; Canal 7.00 a 7.25; Baltimore Howard st. 6.87½ a 7; Richmond city mills, 6.50; country, 6.50; Alexandria, 6.50 a 6.75; Fredericksburg 6.50; Petersburg, 6.50; Rye Flour, 3 50 a 3.75; Indian Meal, per bbl. 2.50; per hhd. 13.00 a 13.50. *Grain*, Wheat, Virginia 1.27 a 1.28; N. Carolina 1.28 a 1.30; Rye, North, .68 a. 70; Corn, Yellow, North, .54 a .56; Barley, 55; Oats, South and North, .32 a .38; Peas, white dry 7 bu. 6.00; Beans, 7 bu. 8.00 a 8.50. *Provisions*, Beef, mess 10.00 a 10.50; prime 8.00 a 8.50; cargo —— Butter, N. York, 12½ a 16; shipping, .8 a .11; Lard, .5½ a .6½; Pork, mess 12.50 a 13.00; prime 9.75 a 10.12; cargo 8.50 a 8.75; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* .2¾ a .3¼. *Tobacco*, Virginia .3½ a .6½ a .6½; Kentucky, .3½ a 5½ a .6½. *Wool*, Merino, American fleece, .32 a .38; Pulled, .32 a .35; common, .18 a .25; Pulled, spinning, .18 a .30.

Prices Current in Philadelphia, May 11.

Bees-wax, yellow .23 a .24; *Beans*, bushel $1.25 a 1.50; *Beef*, mess 10 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .8 a .8½, No. 2, .5 a .6; *Cotton*, New Orleans .11 a .13, Upland .9 a .10½, Tennessee .9 a .10½, Alabama .9 a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .8 a .8½. *Flour*, super. 6.50, fine 6.25; Rye 3.37½ a 3.50; Cornmeal, hds. 11.00 a 11.25, bls. 2.12½ a 2.18¾; *Flaxseed*, cask 9.50 a 9.75; bu. 1.35; *Grain*, Wheat 1.20 a 1.30; Rye .50 a.60, Corn l. c. white, .42 a .43, l. c. yellow, .46 a .47, u. c. round, .48 a .50; Oats .30 a .37, Barley, Pa. .45 a .50; do. Eastern, .55; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western 7; *Hemp*, 220; *Lard*, .6 a .8; *Oil*, linseed, .80; *Pork*, mess, 13.00 a 13.50, prime 11.50 a 12, cargo 10.25 a 10.50; *Rice*, 2.75 a 3.25; *Tobacco*, Kentucky .4 a .7, Virginia .4½ a .7; *Wool*, common washed lb. .28 a .30, half blood .30 a .33, three quarters blood .33 a .35, full blood .36 a .40, unwashed, generally 10 cents less, according to quality.

IMPROVED REFRIGERATOR OR PORTABLE ICE HOUSE,

MADE ONLY BY DANIEL RICHARDSON,

At the Old Exchange, in Commerce near the corner of Water street.

Good house wives only can calculate the many useful and economical purposes to which this invention may be applied. It may be fully relied on for keeping butter, milk, meat, eggs, fruits, vegetables, wines and liquors of every kind, or any other articles of household consumption, perfectly cool, fresh, pure, sweet, clean and free from taint as long as desirable, and it is attended with another advantage—complete security against every species of vermin. And in winter it will keep any article from freezing that may be deposited in it

Captains of steamboats and vessels going to sea, will find those articles the most essential thing on board their vessels, as coarse alum salt can be used in them to keep them cold instead of ice.

Also his new *Invented* BUTTER BOX constructed on the same principles of the Refrigerator. In these butter boxes any quantity of butter may be transported to market from any distance by land or water in the best condition, perfectly hard and without injury to the form of the prints in the hotest season.

HEMP AND OTHER SEEDS.

The subscriber has on hand one barrel of very fine HEMP SEED, just received from Kentucky. He has also the white Italian MULBERRY SEED, of superior quality; and likewise white English and Mercer POTATOES for seed, and a very good supply of the Messrs. Landreth's superior GARDEN SEEDS, each paper bearing the Messrs. Landreth's name. Warranted Ploughs, Cultivators, Patent Cylindrical and Dutch Cutting Boxes, Wheat Fans, and other Agricultural Implements, on hand as usual, of his own manufacture, and will be warranted as good as any implements of their kind in the state. Extra Mould Boards, Heels and Points for Davis' patent Ploughs, are kept constantly on hand for sale, to supply the place of those worn out on ploughs made by Mr. Davis or any of his agents, but will not be furnished on any terms to be made into new ploughs by other workmen than agents for Mr. Davis.

All orders, post paid, will meet with prompt attention. JONATHAN S. EASTMAN,

No 36 West Pratt-st. between Hanover and Charles.

ALMANAC.

1829. May.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 16	4	54	7	6	14	12	3	42
Sunday,........ 17	4	53	7	7	14	14	4	17
Monday,....... 18	4	52	7	8	14	16	rises.	
Tuesday,...... 19	4	51	7	9	14	18	8	8
Wednesday,.. 20	4	50	7	10	14	20	9	5
Thursday,..... 21	4	50	7	10	14	20	9	58
Friday,......... 22	4	49	7	11	14	22	10	47

Full Moon, 18th, 2 h. 41 m. Ev.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

Tobacco.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 6.00—red, 5.00 *a* 8.00—fine red, 6.00 *a* 10.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red 8.00 *a* 12.00—fine yellow, 10.00 *a* 20.00—Rappahannock, 4.00 *a* 6.00—Kentucky, common 5.00 *a* 7.00—wrapping, 6.00 *a* 8.00.

Flour—best white wheat family, $7.50—superfine Howard street, 6.75; city mills, 6.25 *a* 6.50; Susquehanna, 6.50—Corn Meal, bbl. 2.50—Grain, best red wheat, 1.20 *a* 1.30—best white do. 1.30 *a* 1.50—ord. to good, .70 *a* 1.25—Corn, white, .45 *a* .47; yellow, .46 *a* .48—Rye, .58 *a* .68—Oats, .26 *a* .26—Beans, 1.00 *a* 1.25—Peas, .55 *a* .60—Clover seed, 4.00 *a* 4.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a*.50 lb.—Barley, .45 *a*.50—Flaxseed, 1.00—Cotton, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alab. .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Geo. .9 *a* .12—Whiskey, hhds. 1st pf. .22 *a* .22½—in bbls. 24—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 3.25; No. 2, 2.87½ *a* 3—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Baltimore cured, new, .9½ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .29—Plaster Paris, cargo price per ton, $7.00, ground, 1 37½ bbl.—Prime Beef on the hoof, $4.50 *a* $6.00.

Marketing.—Apples, per bushel. $2.00; Squabs, 18¾; Young Chickens, 3.50 *a* 4.00 per doz.; Butter, lb. .31¼ *a* 37½; Eggs, .11 *a* .12½; Potatoes, Irish, bush. 1.00; Fowls, doz. 3 *a* 3.75; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .67½; 1.00 Sausages, lb. .8; Shad, 10.00 *a* 12.00 per hundred; Terrapins, 4.00 *a* 4.50 per doz; Pork, 5.50 *a* 6.00 cwt.

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AGRICULTURE.

(From the British Farmer's Magazine.)

MR. LAWSON ON SMUT.

Sir,—At page 290, vol. i. of the *Quarterly Journal of Agriculture*, will be found a very interesting account, by Mr. Fleming of Flisk, of a *remarkable law of vegetable life*. To this law I beg leave to call your attention for a short time, and afterwards state its application to the present subject.

I transcribe the whole of Mr. Fleming's observations. They are as follow, *viz.*—

"It frequently happens that the results of experience are extensively acted upon by practical men, in reference to particular operations, long before the principle concerned in the arrangement be distinctly recognized, or its application to objects, under other circumstances, be deemed either possible or expedient. The theoretical naturalist frequently receives the first hint of his generalizations from those who have confined their attention to effects merely, and who have marked these even under peculiarly confined limits. Yet we must be contented to receive knowledge from every quarter, though in scanty portions, and rejoice in every contribution likely to accelerate the march of improvement.

"It is well known, that, in the animal kingdom, all those circumstances which accelerate the growth of the body, exercise a proportional influence on the reproductive system, so that the period of puberty is uniformly earlier in domesticated than in wild animals, and in those which are fed plentifully with food than in those which are scantily supplied These effects of an abundant supply of food are exhibited throughout the whole range of the animal kingdom, as far as observation has hitherto extended. The very reverse of this arrangement seems to prevail in the vegetable kingdom. Where plants are furnished with an abundant supply of food, their reproductive energies develope themselves slowly, and flowers and fruit or seeds are late in appearing. On the other hand, when the supply of nourishment is scanty; when the plant is, as it were, starved and when death is threatened, the reproductive energies act with readiness, flowers and seeds are produced, and the extinction of the race guarded against; or, in other words, *the scantier the supply of nourishment, the earlier will a plant propagate its kind.* Let us now attend to some of the exhibition of this law, and their application to useful purposes.

"In reference to seeds, it has been long known to gardeners, that those which are new or fresh produce plants with more luxuriant foliage, and less inclined to run into flower and fruit, than such as have been kept for some time, and are partially spoiled, In the first case, the supply of nourishment, during the early stages of its growth being in abundance, the plant enlarges rapidly in size; while, in the latter case, the scanty supply causes the plant, in obedience to the law which we have announced, to run more directly to flower and seed. These circumstances are carefully considered in the culture of cucumbers and melons, the seeds of which are seldom employed until several years old. Such, indeed, is the attention paid to this condition, that we find in books on horticulture the following grave recommendation;—'If new seed only can be had, it should be carried a week or two in the breeches pocket, to dry away some of the more watery parts.' A similar attention to this law, in reference to the seeds of other vegetables, is productive of equal benefit. Peas, for example, are well known as apt to run to straw where the ground is rich or moist. The employment of old is the only suitable remedy. In some newly enclosed *carse-lands*, the evil of excessive luxuriance is frequently experienced to an inconvenient degree during two or three years. The straw is great in quantity, but the grain is always deficient. In vain is recourse had to early or thin sowing, while the use of old seed is neglected. We need not here guard against misconception, by stating in detail, that, where seeds are kept *too long*, they either do not vegetate, or give origin to a weak, sickly useless plant. Where luxuriance of leaf and great size are the objects aimed at in the cultivation of garden or farm produce, the influence we have been considering must be guarded against as an evil; especially, for example, with turnips and cabbage; old seed producing plants too much disposed to run to flower.

"Independent of the influence which this law exercises on the future plant, as the result of the condition of the seed, we have it in our power to witness its operation under other circumstances, in the *growing plant* itself. In the management of *fruit trees*, there are a variety of plans pursued, which, though obviously depending on this *law* of the vegetable kingdom, are frequently but imperfectly understood by the practical gardener. The *transplanting* of fruit-trees hastens the production of flower buds. A tree which for years has shown no tendency to produce flower-buds, but which has been exclusively occupied in the extension of its roots and branches, will, upon being shifted from its place, soon exhibit symptoms of a change. The roots, by this process, have been in part injured, the supply of sap to the tree during the following season has in consequence become diminished, and the plant ceasing in a great measure to extend its size, hastens to propagate its kind by the production of flower-buds, and the subsequent display of blossoms and fruit.

"The diminished supply of sap, and the consequent hastening of the production of fruit-buds, is accomplished by several other plans equally efficacious. When a rank growing fruit-tree is engrafted on a slow growing stock, or, in other words, when a tree requiring much sap is compelled to receive its supply through a tree having but a scanty supply, the engrafted branch will come earlier into fruit than if it had been always supplied with abundant nourishment. This method of accelerating the production of fruit; and termed *dwarfing*, is peculiarly serviceable in enabling the cultivator of new varieties to become early acquainted with their respective merits.

"When fruit trees are prone to run to wood, gardeners are accustomed to lay bare a portion of their roots during winter. By this exposure many of the fibres are destroyed, and the vigour of all greatly diminished; so that the sap, during the following summer, is transmitted to the branches in less quantity, and the production of fruit-buds is the consequence.

"Fruit-trees, luxuriant in leaves and branches, but bad bearers, are sometimes forced into a productive state, by having portions of the bark removed by the knife, or wires twisted round the stem or the branches. In this case, the ascent of the sap is indirectly diminished, by the obstruction of the vessels containing the proper juices, the death of the plant, or portion of the plant, is threatened, and the reproductive organs speedily exercise their functions. The late Dr. Walker, Professor of Natural History in the University of Edinburgh, who had devoted much time to the investigation of vegetable physiology, intimates, that the effects here produced by barking; or the twisting of wires, have been accomplished by other means. He says (in his Economical History of the Hebrides, ii. p. 298,) 'to some standard fruit-trees, *honeysuckle* indeed may be applied with great advantage; these, when even of considerable age, do sometimes continue to run so much to wood, and especially towards the heart of the tree, that it remains quite unfruitful. To plant a vigorous honeysuckle at the foot of such a tree, is an easy effectual remedy, and much better than any pruning. The honeysuckle grows up, occupies the heart of the tree, checks its luxuriance, directs its vegetation towards the extremities, and renders it fruitful. A large apple-tree of the above description, above fifty years old, and which had always been barren, was rendered by this practice extremely fruitful. When this end is answered, which will happen in a few years, the honeysuckle should then be removed, before it becomes injurious.'

"In the cultivation of *flowering plants*, a knowledge of this law of vegetable life, and its extensive application, may prove of great importance. Sir James Edward Smith, in his Introduction to Botany, mentions that the Solandra grandiflora, a Jamaica shrub, was for a number of years cultivated in the English stoves, and propagated extensively by cuttings, each plant growing many feet in length every season, from the abundance of moisture and nourishment, without showing any signs of fructification. At length a pot of the Solandra was accidentally left without water in the dry stove at Kew; and, in consequence of this *unintentional* neglect, the luxuriant growth of its branches was greatly checked, and a flower came forth at the extremity of each. By a similar mode of treatment the same effect has since been frequently produced. Indeed, when the law is once properly understood, its application to a variety of cultivated plants, which are slow in showing flower, must be obvious. We have seen it practiced with effect on several species of willows.

"In the cultivation of a farm, numerous examples are frequently occurring of the influence of this arrangement in the vegetable economy. The crops growing on the thinnest parts of the soil, where the nourishment is consequently in diminished quantity, are always the first to exhibit their flowers, and to be ready for the sickle. In ill-managed farms, the harvest is usually much earlier (other things being equal,) than in those where the crops are under the influence of a better system. We have had an opportunity of witnessing the delay of harvest, upon the application of lime for example, in consequence of this increased supply of nourishment producing luxuriance of growth rather than early flowering.

"In the management of *plantations*, the indications of this law may often prove of great value. Wherever we see a tree, in a very young state, exhibiting its flowers and producing fruit, we may anticipate its early decay. The premature formation of fruit-buds is the consequence of a scanty supply of nourishment, arising, it may be, from the roots having been injured, but generally from the plant being placed in an unfavourable soil. Fir-trees readily indicate their disagreement with the soil by the production of cones, while yet young, and this early fructification is the almost sure forerunner of death. The Balsam Fir, for example, which thrives well on a moist soil, will, if planted on a thin dry soil, begin in a few years to produce cones,—then the bark appears covered with blisters, which, when opened, pour forth a limpid resin, and the tree after languishing a few years dies, after, in the course of a dozen of years, having attained the height of from twelve to twenty feet. In looking at those decorated villas, near a large town, which to the citizen appear so captivating, one may frequently discover the real character of the soil, by this premature flowering of the ornamental shrubbery.

"Though plants differ from animals, in reference to this singular law, which we have here ventured to establish from an extensive induction of particulars, they agree, in other respects, in the influence which an abundant supply of nourishment exercises in the increase of the number and size of the progeny."

To me it appears that smut in grain arises from a *modification* of the law now mentioned. In proof of this, I beg leave to recall your attention to my first paper on smut. It appeared in the first volume of your Magazine, at page 450.

If you attend to the facts stated in that paper, you will find many of them which coincide with Mr.

Fleming's observations. To show this in a clearer point of view, I shall place a few of them in opposition to each other.

1st.	1st.
In my paper it will be found among the statement of facts, that "*smutted plants produce* ADDITIONAL LEAVES."	Mr. Fleming says, "it is well known that in the animal kingdom, all those circumstances which accelerate the growth of the body, exercise a proportional influence on the reproductive system. But the very reverso of this arrangement seems to prevail in the vegetable kingdom. In some newly improved carse lands, the evil of excessive luxuriance is frequently experienced; the *straw* is great in quantity, but the grain is always deficient. "When fruit trees are prone to *run to wood*, gardeners are accustomed to lay bare a portion of their roots during winter. By this exposure many of the fibres are destroyed, and the vigour of all greatly diminished; the production of fruit buds is the consequence.
2d.	2d.
"Farmers inform us that *new seed* is more apt than *old* to produce smut, and I stated in the paper above referred to, that appearances of luxuriant vegetation, which are presented to our view in the *stems*, may also be traced to the *flowers;* that if we remove the corolla, and look into the interior of the flower, a *stem*, somewhat pellucid, and of a greenish colour,* will frequently be found growing up in room of the stamins and pistils."	Mr. F. says, "In reference to SEEDS it has been long known to gardeners that those which are new or fresh, produce plants with more luxuriant foliage, and less inclined to run into flower and fruit, than such as have been kept for some time and are partially spoiled."

Having compared these statements, I would now ask what is the greenish coloured stem in the middle of the flower of smutted grain but an *indication of the flower running to wood?* What is this but the law stated by Mr. Fleming, or rather a modification of it?

Mr. Fleming has remarked that an additional supply of moisture causes the *flower* to run to *wood.* This is just what I have stated with regard to smut. If you refer to my former papers you will find it stated, that this effect (the running of the flower to wood) is produced by new seed and an additional supply of nourishment, arising from a separation of the coronal and seminal roots, and that this separation is occasioned by imperfect tillage.

I have thus endeavoured to point out a few passages in which there appears to me to be some remarkable coincidences between the facts stated in my paper on smut, and those which are contained in Mr. Fleming's remarks. I have for a long time supposed that it is a law somewhat similar to the one stated by Mr. Fleming that produces smut, and as Mr. Fleming has given a very clear and perspicuous account of it, I have transcribed the whole of his paper. Without endeavouring, however, to arrive at a correct conclusion on the subject, I shall leave the matter to the determination of the readers of your Magazine, in the hope that some of them may tell us in what other points the coincidences above stated exist, or if these coincidences be merely adventitious. JOHN LAWSON, JUN.

Elgin, Nov. 21, 1828.

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* In a diseased *barley* plant, the pistils are frequently elevated on a *green stem*, resembling the common stem or culm of the plant.

(From the Southern Agriculturist.)

INDIGO.

On the Cultivation and Preparation for Market, of the Bengal Indigo; by A. CAMPBELL DUNLOP, *of Sheldon, North Britain.*

[Communicated by Ex-Gov. Williams, of S. Carolina.]

"*Factory, Nov.* 3, 1828.

My Dear Sir,—Your application, under date of the 17th inst. was received in due course of mail, and I now enclose the memoir on the mode of manufacturing Indigo in Bengal. It was prepared for me by A. Campbell Dunlop, Esq. of North Britain, on board of a crowded steam-boat, on our passage to Baltimore. I have expected to see it for several numbers back of your work; as a friend, to whom I had given a copy, said he would communicate it to you, for publication, with some additional matter of his own on the same subject, and which omission I regret, because his experience might have added value to your own labours.* Accident threw me into the society of Mr. Dunlop, than whom, I have not met a more gentlemanly and intelligent traveller. He had left his home, in very early life, in pursuit of wealth, and in Bengal found his hopes amply realized, in the cultivation of Indigo. His opinions, being those of a practical agriculurist, are entitled to implicit confidence. His assurances were frequent and most positive, that the use of lime, in the manufacture of Indigo, is injurious, and now entirely omitted in Bengal. During the last session of the Legislature, I gave several copies to different gentlemen, if any of them have made experiments on Mr. Dunlop's directions, it is extremely desirable they should put the public in possession of them. Colonel Glover, of the Senate, may probably give you further information. Respectfully yours,

DAVID R. WILLIAMS.

MEMORANDA.

1st. The seed is thrown in the land broadcast, very poorly cultivated, but grows luxuriantly, from the inundation of the land, yearly from the rains. The land seldom gives two following good crops.

2d. The plant is cut when the leaves become dark green and full of juice—not particular about the height, say about five to six feet, and when the lower leaves begin to drop off. It is cut and put in the vats as soon as possible, so that it may not become heated and burnt, which will be the case if it remains heaped together for a short time.

3d. The steeping vats are generally about twenty feet square, and shallow, about three feet and a half high, so that the water may be filled quickly, to keep the plants from heating, which are stacked slightly, to allow the water to penetrate freely, and to extract the colour. From ten to twelve hours steeping is considered sufficient to extract all the matter fit for good colour. This must be regulated according to the temperature of the weather, when—

4th. The water is drawn off into the beating vats, and is generally beat or churned off in three hours, more or less: having, in appearance, on a white plate, a fine large floating grain. When the grain begins to break, the beating should be discontinued and the grain allowed to settle in the vats, when the water should be gently drawn off. A light, Madeira-coloured water, generally gives good colour—sometimes a little greenish, which is not injurious. While churning, the water ought to become a fine light blue on the surface.

5th. The matter or fecula is pumped or run into boilers, and fire put to it until it comes to boil, when the froth subsides, which kills the raw vegetation, and makes it drain through the cloths quicker, by being run into vats, or tables, long and narrow, so that labourers may clean them without going into the table.

After all the water is drawn off, it is put into boxes or presses, the same as cheese, and pressed in screws until it is as hard as cheese is commonly pressed, so that it may be cut by wire on a table, and in appearance, no cracks or unevenness in the matter. It is generally cut into three inch squares all round. If the cakes then do not break clear and fair, they are broken up, put into the boiler, and reboiled, with the other fecula or matter of ensuing steeps.

6th. It is then put on shelves, overlaid with grass, so that as the cakes shrink up, the grass contracts itself, and keeps the cakes from cracking, without being much handled.

When thoroughly dried, it is packed into chests, and no sweating. *No lime or alkaline used in the process.*

A. C. DUNLOP,

Of Sheldon's Banks, N. Britain.

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* We hope the gentleman here alluded to, will yet favour us with his promised observations.—*Ed. S. Ag.*

(From the Columbian Reporter.)

AGRICULTURAL REPORT.

Adjourned Meeting of the Board of Officers of the Bristol County Agricultural Society, at Taunton, April 8, 1829.

The Committee on Agriculture award the following premiums in addition to those awarded at the annual Cattle Show, in October last, viz:

To Schuyler Shepard, of Mansfield, for the best crop of Indian Corn, being 85¾ bushels on one acre and eight rods of land, - -	$10
To Roland Howard, of Easton, for the best crop of English Turnips, being 117½ bushels on half an acre, - - - - - - -	3
To the same, a gratuity for an extraordinary crop of Ruta Baga, - - - - - -	5

JACOB DEAN,
ELLIS HALL,
HENRY WASHBURN.

Subjoined are the statements of Messrs. Shepard and Howard, showing the mode of cultivation by which the above crops and premiums were obtained, &c.

MANSFIELD, *Nov.* 29, 1828.

I, the subscriber of Mansfield, in the county of Bristol, hereby certify that I raised the present year, eighty-five bushels and three fourths of a bushel of Indian corn on one acre and eight rods of land. Said corn was planted about the 1st of May, in double drills, with about 1 peck of seed corn soaked in copperas water, manured with about eighteen wagon loads of summer and winter manure mixed together. I also dressed the corn over with wood ashes before hoeing it the first time; the first hoeing was performed about three weeks after planting; the second in five, and the third in seven weeks after planting. The crop raised on said land the last year, was, on about one half of it Indian corn, the other half, a crop of rye, taken off in June, and potatoes planted after; manured with about twelve loads of compost manure. SCHUYLER SHEPARD.

To the Committee on Agricultural Experiments and Products.

GENTLEMEN—In conformity to the rules and regulations of the Bristol County Agricultural Society, I send you the amount, together with the manner of culture, &c. of half an acre of flat turnips, and also the amount, &c. of 37 rods of ground sown with Ruta Baga seed, both the growth of 1828.

The quality of the soil sown to flat turnips, is a sandy loam, and much more natural to grain than grass. The land had been in grass for the last four years, and produced but small crop of fine top hay. It was mown in July last, and soon after ploughed, taking care to turn the furrows flat. About the close of the month, there were nineteen loads of ordinary compost manure, (28 bushels to the load, carted on and evenly spread over the said half acre, and the ground once harrowed. On the 4th of August, the clods were raked in heaps, and the turnip seed sown with a hand drill machine, in rows sixteen inches apart, and from three to four inches in the row. When they were well up they were thinned, calculating to have them stand at least six inches apart in the row.—They were afterwards hoed twice, at intervals suited to keep down the weeds. They were gathered Oct. 31st and Nov. 1st, and the produce of the half acre was one hundred and seventeen bushels and a half.

EXPENSES OF CULTIVATION.

Ploughing—two small yoke of oxen and a horse, half a day, - - - - -	$ 83
Driver, and ploughman, half a day, -	75
19 loads manure, and spreading, - -	14 25
Harrowing once, - - - - -	30
Raking sods, - - - - - - -	1 50
Sowing the seed—one man half a day,	50
Thinning and hoeing twice—equal to six days' work, - - - - -	4 50
Gathering the crop—five days' work,	3 75
	$26 38

VALUE OF THE CROP.

112½ bushels at 33 cts per bushel, (the price at which I sold them,) - - - -	38 77
Profit of the half acre, - - - -	$12 39

It may be proper to remark that I think the foregoing crop of flat turnips, was materially lessened in consequence of the unusually severe frost in October.

I also think that the land is in a better condition than it was previous to taking the said crop.

The quality of the soil sown to Ruta Baga, is a light loam, and was planted to corn in 1827.—In April, 1828, the hills were split, and soon after ploughed down, and six loads of compost manure were carted on and spread. The 7th of June the ground was cross-ploughed with a horse—then harrowed, and sown with a drill machine, in rows two feet apart, and at twelve inches in the row.—When the plants were well up they were thinned, and afterwards hoed twice at proper intervals, taking care to keep them free from weeds. They were gathered on the 2d day of November, and the product was one hundred and four bushels, when divested of their tops and clearly trimmed, and weighing seventy lbs. to the bushel, giving a total weight of three tons twelve hundred and eighty pounds.

EXPENSE OF CULTIVATION.

Three ploughings, - - - - -	$1 75
Six loads of manure, - - - - -	5 00
Harrowing, - - - - - - -	25
Seed, sowing, and picking some small stones,	50
Thinning and hoeing twice—five days' work,	3 75
Gathering—4 days' work, - - -	3 00
	$14 25

VALUE OF THE CROP.

104 bushels at 25 cts per bushel, - -	$26 00
Leaving a profit of - - - - -	$11 75

I beg leave here to remark, that I consider Ruta Baga a very valuable esculent, especially for cattle during our long winters, when they are fed principally upon *fresh hay*, of which our section of the country abounds; a small quantity given daily will serve to keep them sufficiently loose, and thus contribute greatly to preserve their health. Its value need only be known to be more generally cultivated.

I am aware, gentlemen, that agreeably to your list of premiums, you are not authorised to award a premium for the product of any root crop grown on any less quantity of land than one fourth of an acre; and it was my intention to have sown *more* than that amount to Ruta Baga, nor did I suspect until the ground was measured, but that I had so done—the lines being in a zig zag form deceived me. But, gentlemen, I leave the case with you, believing that if you think me entitled to a gratuity, you will recommend one, and not otherwise.

I am, gentlemen, with respect,
Your humble servant,
Roland Howard.

(From the New England Farmer.)

POTATOES.

Mr. Fessenden,—I often see much in your very useful paper on potatoes. I will add a few remarks, after more than twenty years experience in farming, having cultivated, some seasons, more than a dozen sorts, and never less than five or six. I fully agree with Mr. Lowell on the subject of the sorts never mixing, from being planted near each other. I have occasionally seen red and white potatoes in the same hill, but perfectly distinct; having accidentally planted a set of each, always having intended, however, to plant by themselves, but carelessness sometimes takes place. New sorts or mixtures, I presume, are never produced, only by sowing the *seeds* contained in the apple and in the blossom.

As to planting whole potatoes, or cutting in halves, or quarters, *if large*, I have not perceived any difference in the crop. I rather imagine that *too much* seed may be planted, as often as *too little.* Why do we want more stocks for a hill than we do of *corn*, say four or five? I believe beyond that number is unnecessary and prejudicial. In Ireland it is often practised by the lower class of farmers, and more especially in scarce seasons, during the winter to scoop out the eyes (as they inform me about three-fourths of an inch in diameter, and one-eighth thick) every day before cooking the rest of the roots. These pieces are saved till planting, the outsides become dry, and do not rot as soon as planted, as many pieces do when planted *immediately after* being cut. I think it always well, two or three weeks before planting to cut the potatoes intended for seed, that they may get dry—or if put off until the day of planting, I would then recommend, that plaster of Paris, or lime, should be sprinkled over them so as to cover and dry up the moisture before dropping in the hills or rows.

I have sometimes, to obtain early potatoes, adopted the plan recommended by Mr. Derby, of Salem, of putting whole potatoes close together in a hot-bed, and covering them, say one or two inches, when the sprouts get five or six inches above ground, take up the roots and break off the sprouts close to the potato. These shoots have roots like a cabbage plant, and may be planted three or four in a hill, or if in rows nine to twelve inches apart—they produced potatoes very equal in size, and generally large. I think this proves they do not require any further nourishment from the *old potato*, as Mr. Derby has returned the same potatoes to the hot-bed, and taken fresh shoots from them four, and I believe, five times. Yours, &c.

NORFOLK.

Extract of a letter dated Richmond, May 9, 1829.

Mr. Skinner:

Sir,—The New York white flint wheat is rapidly coming into favour, it is a very late wheat—branches more than any that I am acquainted with, requires early seeding, from the 20th September to the 10th October—my fourth experiment is now on the ground, and is as fine as could be desired.

Yours, &c. John Allan.

P. S. Gen. J. H. Cocke, has changed his opinion of its character. He requested to be supplied with twenty bushels of my last crop for seed—it was less injured by the unusual warm winter of 1827-28, than any of the earlier wheat.

HORTICULTURE.

RHUBARB.

[Several inquiries having been made of the Editor, relative to the cultivation of Rhubarb, we copy the following article from Loudon's Encyclopedia of Gardening, as being the best one at hand. Some of our friends who have experience in the culture of Rhubarb would confer a favour by furnishing us with some practical hints on the subject.]

Rheum, L.; Ennean Trig. L.; and Polygoneæ, J. Rhubarbe, Fr.; Rhabarber, Ger.; and Rubarbaro, Ital.

There are three species of this plant in cultivation, the *rhaponticum*, *hybridum*, and *palmatum*, all perennials.

Rheum Rhaponticum, L. is a native of Asia, and was introduced in 1573. The leaves are blunt and smooth, veins reddish, somewhat hairy underneath; petioles grooved above and rounded at the edge. This species has been longest in cultivation.

R. hybridum, L. is also a native of Asia, introduced in 1778. The leaves are large, somewhat cordate, smooth, and of a light green. When under good cultivation, they often measure four or five feet in length, the foot-stalk included. This sort was first introduced as a culinary rhubarb, by J. Dickson, V. P. H. S. about twenty years ago, and is esteemed more succulent than the *R. Rhaponticum.*

R. Palmatum, L. is a native of Tartary, distinguished from all the others by its elegant palmate leaves. It has been known in this country since 1758, and is generally considered as the true Turkey or Russian rhubarb.

Use. The two first species are cultivated entirely, and the third in gardens, principally for the petioles of the root-leaves, which are peeled, cut down, and formed into tarts and pies in the manner of apples and gooseberries. The *R. Hybridum* affords the most abundant and succulent supply for this purpose.

Propagation and Culture. All the sorts may be raised either from seed or by dividing the roots. If from seed, which is the best mode, sow in light deep earth in spring; and the plants, if kept eight or nine inches asunder, will be fit for transplanting in autumn, and for use next spring. When the roots are divided, care must be had to retain a bud on the crown of each section: they may be planted where they are finally to remain.

When a plantation is to be made, the ground, which should be light and rather sandy, but well manured, should be trenched three spits, or as deep as the subsoil will admit, adding a good manuring of well-rotted hot-bed dung. Then plant in rows three feet wide by two feet, in the rows for the *R. rhaponticum* and *palmatum*, and five feet wide by three feet, in the rows for the *R. hybridum.* No other culture is required than keeping the ground free of weeds, occasionally stirring it during the summer with a three-pronged fork, and adding a dressing of well-rotted manure every autumn or spring, stirring the earth as deep as possible. Such a plantation will continue good many years.

Some never allow the flower-stalks to produce flowers; and others cut them over as soon as they have done flowering, to prevent the plants from being exhausted by the production of seeds. The former seems the preferable method, as the flower-stalks of plants cannot, like the leaves, be considered as preparing a reserve of nourishment for the roots.

Blanching. The advantages of blanching the stalks of rhubarb for culinary purposes have been pointed out by T. Hare, Esq. "These are twofold, namely, the desirable qualities of improved appearance and flavor, and a saving in the quantity of sugar necessary to render it agreeable to the palate, since the leaf-stalks, when blanched, are infinitely less harsh than those grown under the full influence of light in an open situation." It may either be blanched by earthing up the roots early in spring, or earthen pots or covers may be used, as in blanching *sea kale.*

To force Rhubarb. Two methods are described in the *Hort. Trans.* vol. iii. The first is by D. Judd, of Edmonton, who states, that his first attempt was made by covering plants of the *Rheum hybridum* with common garden pots, number twelves, having their holes stopped. These were covered with fermenting dung; and the plants came very fine and quickly; but were much broken by the sides and tops of the pots. "After it was all well up, the dung and pots were entirely taken off, and large hand-glasses were substituted in their stead, thickly covered with mats every night, and in dull weather. This process I found greatly to improve their flavor, and it gave me a regular supply till that in the open air was ready for use. The following year I had large pots made on purpose, without holes, but these broke the shoots almost as much as the first, for this sort of rhubarb, grows so very luxuriantly, that it is impatient of such confinement." He afterwards enclosed and covered his bed with open frame-work, around and on which, he placed the dung, and with this treatment, he says, "the rhubarb has come up very regularly, of excellent quality, and wants far less attention than was required by my former method; for the frame-work renders hand glasses, or any other cover, unnecessary. Care should be taken to lay the dung in such a manner that the top may be partly or wholly taken off at any time for the purpose of gathering or examination, without disturbing the sides. That this is a superior method for forcing the *Rheum hybridum,* this year's experience has satisfied me; but still the forcing by pots will answer very well for any of the smaller growing species.

"I have never found any difference between using dung fresh from the stable, and that which had undergone fermentation, provided it was not suffered to heat violently after its application to the frame. I do not permit the internal heat of the hollow space, above the plants, to rise above 60°, between 55° and 60° being the proper medium.

"To those who dislike the trouble of either frames or pots, it may be useful to know that rhubarb will come in much quicker, by being covered about six inches thick, with light litter; care should be taken, in putting it on, and removing it, that no injury be done to the plants."

The next mode is by T. A. Knight, and appears to have been practiced on the *R. Rhaponticum.* In this, as in almost every point of practice related by this philosophical horticulturist, he precedes it with a *rationale* or relation of the principles on which the practice is founded, and which deserves in this, as in every case, the attention of gardeners, as tending to enlarge their ideas, and enable them to generalize on vegetable physiology. He observes:

"The root of every perennial herbaceous plant contains within itself, during winter, all the organizable matter, which it expends in the spring in the formation of its first foliage and flower-stems; and it requires neither food nor light to enable it to protrude these, but simply heat and water: and if the root be removed entire, as soon as its leaves become lifeless, it will be found to vegetate, after being replanted, as strongly as it would have done, if it had retained its first position. These circumstances led me, in the last winter, to dig up the roots of many plants of the common rhubarb (which I had raised from cuttings in the preceding spring), and to place them in a few large and deep pots, each pot being made to receive as many as it would contain. Some fine sandy loam was then washed in, to fill entirely the interstices between the roots, the tops of which were so placed as to be level with each other, and about an inch below the surface of the mould in the pots, which were covered with other pots of the same size, inverted upon them: being then placed in a vinery (in a situation where nothing else could be made to thrive on account of want of light), and being copiously supplied with water, the plants vegetated rapidly and strongly; and from each pot I obtained three successive crops, the leaf-stalks of the two first being crowded so closely as nearly to touch each other over the whole surface of the pots. As soon as the third crop of leaves was broken off, and a change of roots became necessary; those taken from the pots were planted in the open ground, their tops being covered about an inch deep with mould, and I have reason to believe, from present appearances, that they will live and recover strength, if given a year of rest, to be fit for forcing again. Should they, however, perish, it is of very little consequence; as year-old roots, raised from cuttings or even from seeds, sowed in autumn in rich soil, will be found sufficiently strong for use.

"The heat of a hot-bed, a kitchen, or other room, and, on the approach of spring (probably at any period after the middle of January), a cellar, will afford a sufficiently high temperature; and the advantage in all cases will be that of obtaining from one foot of surface as much produce as in the natural state of growth of the plants would occupy twenty feet; and in the shady space of the vinery or peach-house, not applicable to other purposes, and without incurring any additional expense in fuel, or doing injury to the soil, a succession of abundant crops may be raised."

Taking the Stalks. Remove a little earth, and bending down the leaf you would remove, slip it off from the crown, without breaking or using the knife. The stalks are fit to use when the leaf is half-expanded; but a larger produce is obtained by letting them remain till in full expansion, as is practised by the market-gardeners. The stalks are tied in bundles of a dozen and upwards, and thus exposed for sale.

To save Seed. Leave one or two of the strongest flower stalks to perfect their seeds, which they will do in July and August.

(From the New England Farmer.)

INSECTS.

Mr. Fessenden,—Among the many tribes of insects, which devour the vegetable products of the farmer, that numerous species commonly called *rose bugs,* are, at present, the most alarming.

In the year 1825, the writer began his observations and experiments on these destructive insects, not expecting any pecuniary remuneration whatever, but with a view to satisfy himself as to their habits and economy, hoping in the course of the investigation to find some effectual mode of destruction, or at least, some efficacious antidote. He was prompted to the course by the great injury they had done him. He had no previous opinions to support; but expected to learn their economy by a close examination of all their movements. He was unacquainted with any system of entomology, except that of Linnæus, and with that imperfectly. He had merely learned by turning over a few pages of the Encyclopedia, then publishing in Philadelphia, that there were new arrangements, new divisions, and new names; but he had no leisure time to acquaint himself with the different systems. He had not seen any specific name of the *rose bug.* He suspected that it was an American insect, probably not described by any foreign entomologist. It was first known by its ravages on the *rose;* and on this account had received its common name. And from observation, it had a manifest preference for that flower, above every other vegetable production, destroying every variety within his knowledge. Under all these circumstances, he called the insect SCARABŒUS *roseus,* a name, which then answered his purpose, the specific name being founded (as was apprehended) on one of its peculiar habits.

It now appears, however, that the insect has been described by several entomologists, each giving a different specific name, some founding it on a prominent habit, and others on anatomical structure. Fabricius first described the insect in question, and called it MELOLONTHA *subspinosa,* which specific name has the precedence, and ought to be retained. The modern genus, MELOLONTHA is included in the SCARABŒUS, of Linnæus, the parent of the science.

But neither the name, nor the history so much concerns us, as to know in what manner we can prevent their depredations. As to the caterpillar and some others, we have the mode of destruction clearly pointed; not so with the rose bug.—Should they increase from year to year (and we see nothing to prevent, except the powerful operation of some natural cause, now unknown to us,) they will in time not far distant, sweep all before them.

They, in 1828, destroyed much fruit, and stripped my grape vines, one of which (a great bearer ten years ago) measures eight inches in circumference, sixteen feet from the root, and spreads its branches over much ground. They first appeared on the 10th of June, and increased until the 20th, at which time they were very numerous; but from this time, decreased, and but comparatively few were seen after the 2d of July—very few after the 10th, and none were observed after the 23d. Ten quarts, by measure, were caught, mostly on rose bushes.

Neither the mutilated roses, foliage of plants, nor damaged fruit should be immediately removed, as these insects prefer such, to that which is sound and unhurt. They will collect round a mutilated rose in prodigious numbers, and may be easily caught.

It seems necessary, in order to concentrate our efforts, in one common cause, against our numerous enemies, that investigations and experiments should be made known. An experiment, fairly conducted, whether successful or not will have its use. If successful, it is of great importance, if unsuccessful, it will prevent a repetition, and may lead to one of more efficacy.

Fifteen grains of corrosive sublimate dissolved in two ounces of spirit and added to one quart of water, with a little gum arabic, and applied with a brush to young fruit, peaches, &c. was not found effectual against the rose bugs; but it destroyed both fruit and foliage. The same solution applied to young cucumbers did not prevent the yellow bugs from injuring them, neither did it appear to injure the plants.

A strong decoction of wormwood (artemesia absinthium) with a fine powder of columba root (a very bitter substance) and a little gum arabic, to make it adhesive, applied to fruit and young cucumbers, was not effectual against the insects.

The best antidote against the rose bug, and the small yellow bug, that has yet come under my inspection is *slacked lime* applied with a dredging box, while the fruits or plants are wet with dew. If the fruit or plants be wet with a weak solution of gum arabic, previously to the application of the lime, it will remain on them much longer, and no injury will be sustained by it. If applied to young cucumber plants, the seed leaves must be carefully turned up wet, and the lime applied as aforesaid. The lime used had been nicely slacked with a little water, one year, for the purposes of the garden. Perhaps, it would be equally well, if slacked immediately before its application.

It was found, that, if rose bugs, while on plants, be thoroughly wet with very strong soap suds, (one gill of strong soft soap to one quart of water) they soon die. This strength did not injure the plants on which it was tried. This experiment was made when the bugs were on the decline, and whether the mixture would have the same effect in the beginning of their race, while in their utmost vigour, or prevent them from preying on plants wet with it, further experiments may determine. It is needless to say any thing in this paper, as to the fertilizing power of this application, or that of lime.

In strong soap suds (one gill of soap and two quarts of water) rose bugs will die in a short time, and this mixture supersedes the necessity of scalding them, as is the case when caught in simple water. R. GREEN.

Mansfield, February 6, 1828.

(From the Vine-Dresser's Manual.)

THE ART OF MAKING WINE.

(*Continued from page* 69.)

Of the Sulphuring or Stumming of Wines.

This process is the impregnation of the wine with sulphureous vapours, by burning over it sulphur matches. The matches are simple or compound. The simple are made of a slip of cloth or muslin, 6 or 7 inches long, and 1½ inches in breadth, that is soaked in melted sulphur. Compound matches are prepared by adding aromatics to the sulphur, such as pounded cloves, cinnamon, ginger, coriander, or Florentine orris root; or nips of thyme, lavender, or marjoram; or orange flowers, &c. Those fabricated at Strasburg and which are rolled in violet-leaves, are esteemed the most.

The match is lighted, and suspended by an iron wire in at the bung-hole, which is then closed tight, and the match allowed to burn. While it is burning, the internal air escapes with a hissing sound from every fissure; these should be instantly stopped with any coarse luting at hand. Stumming discolours the wine and renders it turbid, but it soon recovers. Wines that have been sulphured keep longer, but red wines are faded by it; consequently, sometimes diminished in value. Owing to this, of late years, the following plan has been adopted. A small quantity of brandy is poured into the cask, and set on fire by a burning string, and while it is burning, the band is held over the bung-hole without closing it entirely. This is now the prevailing custom in all the department of Herault.

In Marseillan, and wherever the Picardan wines are made, a sort of syrup is prepared from white grapes and called stum, which is used in preference to sulphuring. It is prepared in the following manner: as soon as the juice of the grapes flows from the press, it is stoutly stummed, to prevent its fermenting, and is poured into casks one fourth filled. Several matches are burned over the liquor, and the cask bunged and repeatedly shaken, until, when the bung is opened, no gas escapes by the opening. More must is then poured in and matches burned again, and the process of shaking repeated; this is continued, until at last the cask is filled. Must prepared in this manner, never ferments; it has a sweetish taste, a strong smell of sulphur, and if a proportionate quantity of high proof alcohol is added to it; it makes a very hot cordial wine, called Calabrian wine; and is employed to give strength or sweetness to wines that are tart or poor.

Of Bottling.

So long as the wine remains in the cask, it is slowly making alterations for the better. There are some very superior, generous wines that will stand the cask for three or four years, such as those of the *Clos Saint-Thierry*, which unite the hue and the bouquet of Burgundy, to the lightness and liveliness of Champagne; such also are those of the *Clos-Vougeot;* but it is only in well corked bottles that wine acquires all the finish of its properties. The more spirit, nerve or raciness, and body that a wine has, the better it is for it to be bottled; but light, delicate, tender wines do not bear it so well. Bottling will not bear negligence; very good crops now and then are so injured by bad bottling as not to be recognizable. It should be done thirteen months after the vintage; the selection of bottles and corks, and the preparation of the pitch or wax to cover the cork should not be entrusted out of the hands of the master.

Bottles carelessly tempered, or of poor glass, change the wine; those that have been used are apt to take a bad taste from the cellar: especially if they have been stowed away standing, and it is very hard to clean them; if not thoroughly cleansed they are sure to spoil the wine. If not of regular sizes and dimensions, it is hard to arrange them smoothly, and they are very subject to break in the pile. That the bottles be of equal sizes, and from some manufactory of reputation, is the first requisite. The second is to rinse them twenty-four hours before they are used, not with duck shot as some recommend, which is a dangerous practice, but with gravel-stones, or a piece of steel chain. They must be stood to drain on drilled boards; and if they are to be used for any weak wines, a little brandy should be poured in them first; this rinsing with brandy is not to be practised if they are to hold fine wines, the bouquet of which would be destroyed by the brandy.

Every bottle with a flaw, or coat of tartar, or the slightest musty smell, should be rejected without fail. Bottles for Champagne should be of very thick glass, well annealed, and from some known glass-works, or the wine is risked with a dead certainty of loss.

Quality of the Corks.—They should be round, new, and very sound; round, that they may fill up the neck compactly; new, to give no ill taste to the wine; and very sound, to prevent breaking as much as possible. They should be elastic; a stiff cork will break the neck of the bottle, or else does not fit well. In France there is a trade carried on in old corks by houses that consume a great number; they are re-peeled and offered for sale, but may be known by the dirty brown colour of the pores; the new cork is always of a reddish brown in the streaks. These furbished corks are only fit for bottles that are to be used immediately. The corks are driven in with a wooden mallet.

Of Securing the Corks.—Unless the corks are waxed, if kept any time, the wood-lice gnaw them, or they rot from the damp, and the liquor leaks out. The best wax is made of the following articles, and in the following proportions, for three hundred bottles:—2 lbs. rosin, and ½ lb. of Burgundy pitch, ¼ lb. of yellow beeswax, and a small sprinkling of red mastic, melted together over the fire, and taken off as soon as the scum rises, properly stirred and incorporated, and put back on the fire to melt for use. Tallow may be substituted for beeswax, but in smaller quantity; too much tallow and the wax will not harden; too little wax or tallow, or none, and it will not cleave. The neck of the corked bottle is plunged into this liquid for about two thirds of an inch, and then turned up to harden.

Of Piling the Bottles.—The bottles must be laid, so that the deposit may fall on one side of the bottle: and the cork be kept constantly moist. The ground should be perfectly level and well sanded. The bottles are ranged side by side, with some scantling under the necks to support them; a layer of sand an inch or an inch and a quarter deep must be strewn over the first range of bottles before a second can be piled upon them; and so on with every range. The piles are made a yard high; they may be laid in the middle of the cellar if with the precaution adopted in the department of Marne, of interposing a thin scantling or frame work of lathes, supported at the ends. The upright bits to which the horizontal pieces are fastened, sustain the mass and give strength to the pile.

An uncultivated mind, like unmanured ground, will soon be overrun with weeds.

LADIES' DEPARTMENT.

(From the United States' Gazette.)

PHILOSOPHY OF WOMAN'S RELIGION.

A SKETCH

He who salutes every passenger, may sometimes receive an uncivil answer; he who returns no salutation, or intimates an unwillingness to exchange civilities, might incur the risk of being marked down for a churl. In the way of error, it is better to be passive than active; so I find a kindly look for all who pass me, beyond the precincts of the city. It costs, indeed, an occasional penny extraordinary for a medicant; but the "God bless you" of a human being, must surely have lost its value, if it will not pass in exchange of so small a sum.

Enjoying the prime of the day in September last, about two miles from the city, I chanced to meet the "good morning" of a man with a cordiality that evidently gained me a favourable estimation with him; and as his occupation was before him, and mine was unknown, I put ceremony aside at once, by asking information upon subjects connected with a farm which it seemed he was cultivating. While he was enlarging upon a topic that was evidently pleasing to him, though I must confess it had little interest for me, beyond the pleasure of witnessing his animation, his wife came to the door with an infant in her arms. I may have done her wrong in neglect; but the child possessed attractions superior to its parents at that moment; and, as if conscious of my feelings, the nursling stretched out its hands, and evinced a desire to approach me. I learned that it was an only son—the last of five; affections that had expanded over all others, had settled with intensity upon this—it was worth all a parent's love; I gazed long upon its perfect features, the soft blue eyes and full dark lashes; and as I pressed my lips upon its face, the balmy fragrance of its breath was redolent of health. I had won upon the mother's esteem, by my attention to her boy; but a tear that fell from my eye, warm upon the infant's breast, showed her that while I joyed with her in the living, I could in deep affliction sympathise with her for the dead.

I know not how it was, but for sometime there was scarcely a morning that I did not pass the house in my ride, and the boy, though not a year old, had learned to expect me.—Let those who have not a fondness for children, pass on the other side of the way—there is enough in life with which to amuse themselves; I neither envy them their capacities for other enjoyments, nor would give one of that infant's smiles of recognition for all their fancied pleasure.

The equinoctial rains made sad work with my calculations of riding, and it was not until the weather became settled that I was enabled to renew my wonted excursions.—It was about 8 o'clock, P. M. that I approached the dwelling of my new acquaintance; and as its low roof met my sight, the thought occurred, whether my little blue eyed friend would, after a lapse of two weeks recognize his former acquaintance. I confess that as I moved towards him some little anxiety was experienced that he should give evidence of pleasure at my return. I had furnished my pockets with some trifles for him, and anticipated his pleasure at the reception; the delight with which he would reach forward to catch them, and the pleasure that would dance in his eye or play round his mouth, as he received the tokens of my affection. His mother, too, had ever shown so much gratification at my fondness for her boy, that I promised myself pleasure in her delight.

Pursuing these anticipations, I arrived, by a short turn in the road, directly in front of the dwelling, without discovering a member of the family. The stopping of the horse in front of the house, I thought would soon bring some one to the door. I waited several minutes—no one appeared. The family might be absent, or perhaps sick; the last thought determined me; so dismounting I opened the wicket gate and proceeded under an arbor of grape vines to the house. The front door was open, and I entered. The parlor was vacant; as I was crossing it I saw the door of a side room opened; I turned towards it; and the cause of the unwonted silence of the habitation was before me.—On a table against the wall of the room rested a *coffin*.—With a single step I was at its side; I looked in; it contained the inanimate form of my little favorite. For a moment I turned away in the agony of disappointment; I looked again—it was too true; and my hopes, childish almost as those I had excited in him, lay blighted. As I gazed upon the cold remains before me, my feelings subsided, and I recovered that tone which the well regulated mind never loses. It was but to divest myself of those acquired feelings concerning death, and the child that lay before me, was as lovely and as deserving admiration as when alive. The beautiful glossiness of his prominent forehead, was set off by the fine silky hair that stretched in a semicircle towards the temples; there was a transparency in the skin through which the blue veins showed with wonderful distinctness; and the budding whiteness of the teeth was discernible between the slightly opened lips; his little hands were crossed below its breast—their beauty had not departed. But the eyes, as I gazed upwards, gleamed glassy between the lids, through their long dark lashes; and as the light flickered through the veins near the window, I sometimes thought that life was returning to animate the lovely features on which I gazed. I stooped to press a kiss upon its face—it was cold, and the tears that I dropped upon it, trickled off as if they had fallen upon polished marble. As I raised my head from the coffin, my eyes met those of the mother. We gaze upon the dead with regret for their loss; we look upon the inanimate corpse of an infant, and mourn that it is soon snatched away; we dwell with fondness upon its features, treasure the memory of its beauties, and sigh that we cannot longer enjoy them. But when we see those whom the bereavement has left childless standing by us in the dignity of grief, the silent cause of sorrow yet stretched before them, we shrink almost with awe from their presence.

Such for a moment were my feelings. I wished myself absent from the scene that was about to ensue; but the extended hand of the afflicted parent, satisfied me that retreat would have been cruelty or cowardice. I pressed the hand of the mother in the ardour of sympathy, and our tears fell fast upon the snowy shroud of the outstretched infant. She leaned forward and buried her face with his in the narrow coffin. Fearing the effects of this paroxysm of grief upon the mother, I would have withdrawn her. "Let me alone," said she; "I know by whom I have been afflicted, and in my sorrow I will not sin; neither will I charge God foolishly." But in my darling's sickness, he lay night and day upon my knees, until he died; and the kind officiousness of neighbours has kept me from a solitary indulgence of grief until now. Let me then, ere they shut him out of my sight forever—let me once more feel his face imprinting its features on my neck, though it be cold as death. I came to yield up, in silence and solitude, my child to Him who gave it—but not without the feelings and grief of a mother. I have bowed to the chastisement—I have even kissed the rod that smote me; but I have not mistaken stoicism for resignation, nor offered the Lord an *unfeeling* for a *submissive* mind. Four times has the hand of heaven visited me in affliction and I have not murmured; and now when the last lamb of the flock is taken, I have in the hour of prayer and solitude, exclaimed—'the Lord giveth and the Lord taketh away,' and when the passion of grief shall have subsided; when the cords of affection, now torn asunder, shall have ceased to bleed, and mourning shall have become woven into the tissue of life, instead of being, as now, its whole web, then, perhaps, I may add,—'blessed be the name of the Lord.' But, oh! so lovely, so bright in promise, of all that a parent's heart can ask, and to lie now so cold."——

Again the mother threw herself upon the coffin and nestled her face with that of her infant.

I saw that it was no time to offer consolation. She had restrained her grief during the presence of her neighbours, and now that she thought herself alone, she had come from her chamber to indulge a mother's grief.

In a short time the people of the vicinity were seen gathering towards the house, with a view of attending the funeral. The mother impressed a new kiss upon the lips of her dead child; she uttered one more burst of grief and shrunk to her chamber.

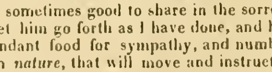
In a little while they screwed down the coffin lid, and a slight bustle denoted preparations for a procession to the grave. I followed among the very few whom the occasion had called together; and as we entered the city of the dead, I saw by the little heap of fresh turned earth, where the tenement of my little favourite was prepared.

The line of followers assembled round the little grave, and the coffin lay at its mouth. At length the hoarse rumbling of the cords, and the suppressed sounds of clods falling far down upon the coffin, told that dust had been committed to dust. I looked for the officiating clergyman, and others appeared to await his service—there was none. It was now that I feared for the firmness of the mother; she had been almost distracted by grief when her child lay before her, in her own house—what could sustain her when she looked down into the deep pit, and saw it there, girt in with the dampness of the grave, lying cold and stretched out, forever to be separated from her gaze, and to become the companion and prey of worms.

The father stepped forward, and looked down upon his child; he withdrew with clamorous grief. The mother advanced, and standing upon a little eminence of fresh earth, she gazed silently down. I could not see her face; but when she raised her head to retire, an expression of agony was passing from her features; her lips remained firmly closed, and her eyes were inflamed.—As she stepped from the grave, she uttered, in scarcely an audible voice, "I shall go unto him, but he shall return no more to me."

If there is one who reads this sketch, and feels that it is sometimes good to share in the sorrows of others, let him go forth as I have done, and he will find abundant food for sympathy, and numberless scenes in *nature*, that will move and instruct more than the wildest bodings forth of *fancy*.

SPORTING OLIO.



Union Course, (Long Island,) Races.

The spring races over the Union course on Long Island commenced yesterday, (May 12.) There were three competitors for the first day's purse, $600, viz:—Betsey Ransom, Ariel and Splendid, all three beautiful greys. Ariel was the favourite all the morning up to the hour of starting, and odds were given on her against the field; but after the first heat those who were so confident began to despond, and Betsey Ransom in turn became the favourite, and the result shewed that those who backed her had no cause to regret it. She beat her antagonists with ease in two heats. In the first heat she took the lead and kept it to the end of the four miles, coming in about a length ahead of Ariel. Several spirited attempts were made on different parts of the course for the mastery, and although Betsey was hugged very closely by Ariel for some time, she could not be passed. The rider of Splendid lost one of his stirrups on the second round, and from that time could take no effectual part in the struggle, but succeeded in saving his distance. Time 7 min. 57 sec.

At the start on the second heat Ariel took the lead, but was unable to maintain it for any very considerable distance, both Splendid and Betsey Ransom alternately passed her, but she afterwards regained her lost ground and pushed ahead once more until near the close of the third mile, when Betsey Ransom stepped in before her and very ungallantly bid her good bye, increasing the distance between them every jump they made. But at this time up comes Splendid to put in his claim for the heat, and urged it with great pertinacity, and at one time it was thought would carry his point, but Betsey proved that she was too much for him in the match, and left him to make his addresses hereafter to some one of less superior blood and bottom. She came in about two lengths ahead. Time 8 min. 7 sec.

The day was remarkably fine, and the course well attended. There was more order and less confusion than we have witnessed at any former race, and this arises from the Union Course having been fenced in all round so as to keep the spectators in their places on the stages, and prevent them from blocking up the course and crossing the track of the horses when they are running.

Second day,—Three mile heats—Purse $400. The first heat was run in 6 minutes, and won by Roman, beating Sir Charles, Lady Hunter, Thistle and Mulatto Mary. Lady Hunter was the favourite at starting and contested the heat very closely with Roman.

Second heat.—Thistle withdrawn. This heat was a close one between Roman and Sir Charles, but was won by the latter.

Third heat.—Lady Hunter withdrawn. This heat was easily won by Sir Charles, who came out several lengths ahead of Roman, and distanced Mulatto Mary.

New Market Races.

[Three first days in the last Farmer.]

Fourth day.—Post Sweepstakes, mile heats, for three years old colts and fillies, $100 entrance, seven subscribers.—Five horses started for this stake:

Mr. Johnson's s. f. full sister to Gohannah,	1	1
Col. Wynn's f. Polly Jones, - -	2	2
Mr. Graves's b. f. by Charles, - -	3	dis
Mr. West's b. f. by Archy, - -	4	3
Mr. Selden's b. c. by Charles, - -	dist.	

Time—First heat 1 m. 52 s.; second heat 1 m. 54 s.

Trotting Match.

A very interesting trot took place last week on the Long Island Trotting Course, three miles and repeat, between Columbus, Comet, Spot and Buckskin; the former was considered as distanced, in consequence of the rider having dismounted before he was authorised by the judges, and the latter took the purse. 1st heat, 8m. 12s; second heat, 8m. 25s.

[N. Y. Enquirer.

Race Horses.

The story of speed in England at the rate of "a mile in a minute," had better be corrected, before it goes further. Flying Childers never went *eighty feet* in a second; nor, if he had, and held it out from the score, could he have reached the mile post, within 160 yards, in a minute. His most extraordinary pretended leaps did not, I think, exceed 26 feet, and no long rating horse ever made *three* such jumps in a second; but even doing that, he would be 200 yards behind the mile post. These errors as to time have been corrected in the Sporting Magazine over and over again, and ought not to be repeated. American Eclipse carried 9 stones. (126 lbs.) in his race with Henry, and not 131. The first heat of 4 miles in the great match race on the Union Course, was done in 7 minutes 37 seconds, the highest speed we have witnessed in this country. The average of the speed with the time is, however, a fraction short of 16 feet to the second. [*N. Y. E. Post.*

PEDIGREE OF SPECULATOR.

MR. SKINNER: *Fayette Co. Ky. May* 4, 1829.

I saw in the Farmer some weeks since, an inquiry for the pedigree of several stallions; among others, of Speculator. He was a large brown horse, foaled in England in 1795; imported into America by Col. Holmes, of the Bowling Green, in Virginia; from whom he was purchased, and brought to Kentucky about 1802, by the late John Breckenridge. He stood in this state two or three seasons, and died about 1805.

Speculator was got by Dragon, his dam sister to Sting, by King Herod; his grandam, Florizel's dam by Cygnet; his g. g. dam Cartouch; his g. g. g. dam Ebony, by Childers; his g. g. g. g. dam, Old Ebony, by Basto.—Dragon, the sire of Speculator, was also imported into the United States. He was out of Juno, and got by Woodpecker, (the sire of Buzzard) who was by Herod, (or King Herod, the grandsire of Diomed.) Herod was no doubt the best horse, except, *perhaps*, the Godolphin Arabian, of which any account has been preserved.

Yours, &c. R. J. B.

GRAND TROTTING MATCH.

The owner of the celebrated American trotting horse received yesterday £250 forfeit from the gentleman who betted that he could find a horse to go four miles in harness in thirteen minutes for £250 even; in 12½ minutes for 500 to £250 and for 750 to £250; but, since the late extraordinary performance on Sunbury Common the latter party deemed it prudent to decline going on with the match, which it was supposed the horse in question would be fully equal to. Preparations had been already made for the match coming off next Monday, within seventy miles of London, the match cart being already packed up, and on the road to the scene of action.

The proprietor of Tom Thumb, the American trotter, has another match on hand in which he stands to win £8200. It will come off, it is expected, within a fortnight. [*English paper.*

THE FARMER.

BALTIMORE, FRIDAY, MAY 22, 1829.

FOREIGN CORRESPONDENCE.

We have received from Mr. GIROD DE L'AIN, corresponding member of the Maryland Agricultural Society, some notes and pamphlets published by, and in relation to the Rural Society of Naz in France, the titles of which we give below, together with the letter addressed to us by Mons. Girod de l'Ain, a gentleman equally celebrated in politics and agricultural industry. We shall give, from time to time, such extracts from the productions with which we have been favoured, as may seem interesting to our readers, and profitable to agriculture.

[*Translations*]

LIST OF COMMUNICATIONS RECEIVED.

1 A Report given by the Rural Association of Naz, to the central Jury for the public exhibition of the products of industry in 1827.

2. Observations from the association of Naz to the Agricultural Society of Maryland.

3. Two extracts of the decision of the central Jury on French industry.

4. An extract on the Agricultural establishments of the district of tiex.

5. A letter of the proprietors of the flocks of Naz, to the Count de Polignac, on the foreign wools.

6. Observations of the same proprietors on the preceding letter.

7. A new Treatise on Wool and Sheep.

8. A Bulletin of the Society of Improvement of Wool.

Letter of M. Girod de l'Ain.

J. S. SKINNER, Esq. *Paris, March* 27, 1829.
Editor of the American Farmer, Baltimore,

Sir,—I received by the obliging medium of my illustrious colleague and friend, Gen. Lafayette, your letter, and the numbers of the AMERICAN FARMER, which you have done me the honour to direct me. I would have been eager in giving you my thanks sooner, if the occupations by which I am surcharged, and the time necessary to collect the documents which I was desiring to send you, would have permitted me.

I owe likewise to you, sir, and I beg you to offer to the Agricultural Society of Maryland, the expression of my sincere gratitude for the title of a corresponding member, which it has been so good as to grant me, and the diploma which you announced to me, but which I have not received. It is too valuable for me not to reclaim it. If I cannot flatter myself that I shall be able to co-operate efficaciously in the labours of the society, I, at least, promise to it in my name, and that of the Rural Society of Naz, the tribute of our common zeal and endeavours for the prosperity of agriculture. We will think ourselves happy to join this relation to all those which already exist between the citizens of our two countries.

I read, with a great deal of interest, the AMERICAN FARMER. I find valuable informations in it: it is, then, with the greatest pleasure that I will receive the subsequent numbers, as you give me to hope I may. I desire that the pamphlets and notes which I beg you to accept in acknowledgment may be useful to you. I shall always be disposed to give you all the explanations and documents that you could require from me; and you may be persuaded that every occasion of keeping up a correspondence with *un homme aussi distingué que vous*, will be very agreeable to me.

I have the honour to be, with high consideration, sir, your most humble and obedient servant,

GIROD DE L'AIN,
Counsellor of the Royal court in Paris, vice-president of the Chamber of Deputies of France.

Extract from one of the pamphlets received with the above.

MISCELLANEOUS.—In the east, in a country from which genius, liberty, and the religion of Christ, have been banished—in a country where the arts have lost their pencils, we are astonished at finding again some remains of an industry worthy of the most civilized nations.

A sample of a bright and light stuff was presented, by the care of the countess Du Cayla, to the committee charged with the administration of the Society of improvement of wool. This tissue is crossed in the manner of the English bombazeen; but the chain and woof are woolly, and so perfectly and elegantly manufactured that our best manufacturers were astonished at it.

The wool of this precious sample proceeds, it is said, from the lamb of one of the species of the *Argali*, the history of which I have been able to sketch, thanks to the celebrated Pallas.

This tissue is manufactured in Constantinople, Smyrna, and some other places of the east. It is very much sought after for the elegant dresses of the Asiatic ladies.—(*Bulletin of the Society of improvement of the wool-fleeces in Paris.*)

COCK FIGHTING.—This cruel sport is pursued in New York, Philadelphia, Baltimore, and throughout the country, to an extent and for amounts of money, that would not be credited if stated. The amateurs say in excuse, that Providence designed them for man's amusement in this way, as indicated by their gallant bearing, and indomitable spirit—and their never failing disposition, on meeting, to encounter each other, and to conquer or die on the spot. Nothing would be easier than to spin out a plausible dissertation in favour of this sport, were it not that, after all, an old fashioned uncle Toby sort of humanity, would teach us not wantonly to sport with the life of any animated being.

There is to be a great main fought at Canton, near Baltimore, on the 25th; in which the knowing ones say, to use the flash terms of the fancy, there will be a great number matched, and an extraordinary display of blood in the cock—science in the keeper—skill in gaffling, and expertness in handing the fowls.—The amount wagered on the main, and on each fight is, as report says, very large; and the reputation of the parties, of the first order.

In the silence usually observed on these occasions, there is some respect paid to the condemnatory sense of the community:—connoisseurs and amateurs are sure to be informed—a wink or a word to the wise is enough.

☞ The spring races commence on the Canton course, on Wednesday next. Horses are coming from Washington, and various other quarters—and fine sport is expected.

☞ A late London *Sunday* Times, says, [it ought to be true,] "We have witnessed, during the past week, several successful experiments of a patent travelling carriage, the property of Sir James Anderson, Bart. and Wm. Henry James, Esq. It is propelled by a steam engine; the cylinders and machinery of which occupy a space inconceivably limited, the former being only 3½ inches diameter, and one foot stroke (or length.) The failure which has hitherto been experienced in bringing steam carriages to perfection is, in the present instance, entirely obviated by the peculiar and simple adaptation of the machinery, and the novel construction of the boiler, which renders its explosion impossible.—On Thursday last we were present at a trial in the neighbourhood of Wanstead, when the carriage proceeded four miles across Epping Forest, over a heavy road, carrying 24 passengers, at the rate of 15 miles per hour, and returned the same distance with 38. It is guided with perfect facility, (of this we ourselves made practical proof,) and its velocity can be regulated at pleasure. It was conducted up a bill newly gravelled, about a quarter of a mile in extent, which proved its ascending power to equal that of any stage-coach and four.—The public will, however, shortly have an opportunity of judging of this unparalleled and important invention, as, we understand, the proprietors will bring these vehicles into general use without delay."

BALTIMORE FLOUR MARKET.—Contrary to general expectation, the price of Howard street Flour has again receded to the rates of week before last—the wagon price on Thursday having been $6 *a* $6 12½. There was scarcely any thing doing from stores, and though we quote at $6.50, it must be considered merely nominal, as we can hear of no sales to authorise quotations.

(From the Norfolk Beacon, May 15.)

☞ **Sale of Roanoke Tobacco.**—A small crop of nine hogsheads Roanoke Tobacco, raised by Colonel E. Kennon, of Mecklenburg County, (Va.) which arrived here on Sunday last, in one of the Virginia and North Carolina Transportation Company's Boats, through the Dismal Swamp Canal, was sold yesterday on McIntosh's Wharf. The sale was well attended, the prices it is believed, as good as could have been obtained elsewhere, and it was very manifest, that had more of the same quality been offered, it would have met a ready sale. The highest price given was $8.31, and the average price $7.37 per hundred.

It may be well to state, that this Tobacco arrived in the very best order, and had not sustained the smallest damage on its way to this market.

Latest Foreign News.

The packet ship Amethyst arrived at Boston on Tuesday week, in 19 days from Liverpool, bringing London dates to the 20th, and Liverpool to the 21st April, inclusive, four days later than were brought by the packet ship Canada. They furnish, however, but little additional intelligence.

The Duke of Wellington is said to be in a reduced state of health, in consequence of the fatigue and agitation of mind he has recently undergone. He was to leave town for the country on the 20th.

Sir Humphry Davy has had a paralytic stroke, and was in a very dangerous state, but at the last accounts was still living.

The price of grain continued to rise, and the duty on foreign corn consequently continued to rise. The rate of duty on wheat from April 10, was 16s. 8d. per quarter.

A terrible accident happened at Hyde on the 1st of April, at about half past 9 o'clock in the evening. The cotton spinners who turned out at Stockport, amounting in numbers to 10,000, have been mainly supported by those spinners who remained in full work in other places, particularly in Manchester, Hyde, and the neighbourhood. The master manufacturers resolved, in consequence, to reduce the wages of those employed, while the turn out continued, and published an address to the operatives, who met in great numbers to consider it, at the Norfolk Arms in Hyde. The club room in which the meeting was held, is 15 yards long and 6 yards wide. Six or seven hundred persons, including females, attended at half past 8; and in about an hour afterwards two beams gave way, by which about 300 persons were precipitated into the room below. The floor of that room also gave way; and the whole mass descended into the cellar. The noise was heard all over the town. A scene of horrible confusion ensued.—Twenty-nine were killed, and ten or twelve others were not expected to recover.

We stated some days since, that the beneficial effects of the Roman Catholic Relief Bill were already experienced in the decisive tone they have enabled the British Government to assume in its negotiations for the restoration of tranquillity throughout Europe. The last foreign arrivals confirm our previous statements.

Mr. Hume had given notice that about the middle of May, he would introduce a motion for altering the present system of corn laws so as to change the present fluctuating scale of duties on importation for a fixed duty.

Ireland.—The latest accounts from Ireland concur in representing the great benefits that, even at this early period, have accrued to that long afflicted country, from the passing of the Catholic Relief Bill. The papists evince no indecent exultation on the occasion; the protestants no abject despondency; but both parties seem inclined to co-operate with each other in the promotion of a general good will and toleration. Meanwhile, numerous commercial speculations wait only till the country shall have settled down into a firm, decided, and permanent tranquillity. Confidence has already extended itself more or less among all classes of the community; and many, distinguished by the strong violence of their ultra-Protestantism, have, now that the great question is settled, confessed that they had been mistaken in their opinions.

A letter from Madrid of the 2d April, states that fresh shocks of an earthquake were felt on the 25th, 30th, and 31st of March. The latter, which took place in the night, spread terror and consternation through the city. It was affirmed, that all Cadiz was submerged by the reaction of the shock at Murcia.

Orchuela, *April* 3.

The number of victims hitherto dug out of the ruins of the towns destroyed by the earthquake amounts already to more than 3000; of that of the persons wounded or mutilated, more than double that number. The houses destroyed are between six and seven thousand. The wine and oil of last year are lost.

Liverpool, *April* 20.

In the last fortnight, the arrivals of cotton have amounted to no less than 92,000 bags. The sales this week are 10,500 bags at previous prices, viz: Upland, middling fair, 5 3-8; fair, 5 5-8; and it is at these prices that the sales have been principally made. Considering the great quantity lately arrived, and that as the cotton is landed, so great a quantity is brought upon the market, we do not think we can calculate on any early improvement, particularly as the trade of the spinners is undoubtedly bad. We are pleased that you have not thus far made any shipments. Pot and pearl ashes may be quoted 35s. to 35s. 6d. both for Montreal and United States.

Liverpool, *April* 21.

The cotton market continues without variation. About 100 bags Brazil, and 200 American have been taken for exportation.

Prices Current in Boston, May 15.

Apples, best, bbl. $.3.00 a 5.00. *Beans*, white, bushel 1.00 a 1.37. *Beef*, mess, bbl. 10.25 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 7.00 a 7.12; Genesee, 7.00 a 7.50; Rye, best, —. *Grain*, Corn, bush. .60 a 62; Rye, .70 a .80; Barley .67; Oats .34 a .37. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 16.00 a 16.50; Navy, mess, 13.00 a 13.50; Cargo, No. 1, 13.00 a 13.25. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel 1.50. *Wool*, Merino, full blood, washed, .30 a .37; do. do. unwashed, .22 a .24; do. three-fourths washed, .25 a .30, do. half and quarter washed, .22 a .26; Native, washed .20 a .25; Pulled, Lambs', 1st sort, .35 a 37; do. do. 2d sort, .22 a .28; do. do. spinning, 1st sort, 27 a .30.

Prices Current in Philadelphia, May 19.

Bees-wax, yellow .23 a .24; *Beans*, bushel $1.25 a 1.50; *Beef*, mess 10 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .8 a .8½, No. 2, .5 a .6; *Cotton*, New Orleans .11 a .13, Upland .9 a .10½, Tennessee .9 a .10½, Alabama .9 a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .8 a .8½. *Flour*, super. 7.00; fine 6.50; Rye 3.50 a 3.75; Cornmeal, hds. 11.50 a ——, bls. 2.12½ a 2.18¾; *Flaxseed*, cask 9.50 a 9.75; bu. 1.35; *Grain*, Wheat 1.30 a 1.40, Rye .60 a.65, Corn l. c. white, .44 a .46, l. c. yellow, .47 a .48, u. c. round, .50 a .52; Oats .30 a .40, Barley, Pa. .45 a .50; do. Eastern, .55; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western 7; *Hemp*, 210; *Lard*, .6 a .8; *Oil*, linseed, .80; *Pork*, mess, 13.00 a 13.50, prime 11.50 a 12, cargo 10.25 a 10.50; *Rice*, 2.75 a 3.25; *Tobacco*, Kentucky .4 a .7, Virginia 4½ a .7; *Wool*, common washed lb. .28 a .30, half blood .30 a .33, three quarters blood .33 a .35, full blood .36 a .40, unwashed, generally 10 cents less, according to quality.

ALMANAC.

1829. May.	Sun. Rises. H.	Sun. Rises. M.	Sun. Sets. H.	Sun. Sets. M.	Length of days. H.	Length of days. M.	Moon Sets. H.	Moon Sets. M.
Saturday,...... 23	4	48	7	12	14	24	11	32
Sunday,........ 24	4	47	7	13	14	26	morn.	
Monday,....... 25	4	47	7	13	14	26	0	13
Tuesday,...... 26	4	46	7	14	14	28	0	51
Wednesday,.. 27	4	45	7	15	14	30	1	28
Thursday,..... 28	4	45	7	15	14	30	2	04
Friday,......... 29	4	44	7	16	14	32	2	42

Moon—Last Quarter, 25th, 3 h. 12 m. Ev.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

Tobacco.—Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 6.00—red, 5.00 *a* 8.00—fine red, 8.00 *a* 10.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red 8.00 *a* 12.00—fine yellow 10.00 *a* 20.00—Rappahannock, 4.00 *a* 6.00—Kentucky, common 5.00 *a* 7.00—wrapping, 6.00 *a* 8.00.

Flour—best white wheat family, $7.50—superfine Howard street, 6.50; city mills, 6.25 *a* 6.50; Susquehanna, 6.50—Corn Meal, bbl. 2.50—Grain, best red wheat, 1.20 *a* 1.30—best white do. 1.30 *a* 1.50—ord. to good, .70 *a* 1.25—Corn, white, .40 *a* .42; yellow, .41 *a* .43—Rye, .58 *a* .63—Oats, .26 *a* .28—Beans, 1.00 *a* 1.25—Peas, .55 *a* .60—Clover seed, 4.00 *a* 4.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a*.50 lb.—Barley, .45 *a*.50—Flaxseed, 1.00—Cotton, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alab. .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Geo. .9 *a* .12—Whiskey, hhds. 1st pf. .22 *a* .22½—in bbls. 24—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 3.75 *a* 4.00; No. 2, 3.50 *a* 3.75—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Balt. cured, new, .9½ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .29—Plaster Paris, cargo price per ton, $7.00, ground, 1.37½ bbl.—Prime Beef on the hoof, $5.50 *a* $6.25.

Marketing.—Apples, per bushel. $2.00; Squabs, 18¾; Young Chickens, 3.50 *a* 4.00 per doz.; Butter, lb. .31¼ *a* 37½; Eggs, .10 *a* .11; Potatoes, Irish, bush. 1.00 *a* 1.50; Fowls, doz. 3 *a* 3.75; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .87½; *a* 1.00 Sausages, lb. .8; Shad, 10.00 *a* 12.00 per hundred; Terrapins, 4.00 *a* 4.50 per doz; Pork, 5.50 *a* 6.00 cwt.

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Mr. Lawson on Smut, and a very interesting account by Mr. Fleming of a remarkable law of vegetable life—On the cultivation and preparation for Market of the Bengal Indigo, by A. Campbell Dunlop—Report of the Bristol County Agricultural Society—On planting Potatoes—On the culture and propagation of Rhubarb, from Loudon's Encyclopedia of Horticulture—Destructive Insects, the Rose bug, how to destroy them—Art of making Wine, continued, of the Sulphuring or Stumming of Wines; of Bottling, Quality of the Corks, securing the Corks, Piling the Bottles—The Philosophy of Woman's Religion, a Sketch—Races on the Union Course, Long Island, first and second day—Fourth day's Race at New Market—Trotting Match on Long Island—Speed of Race Horses—Pedigree of Speculator, a celebrated imported blood horse—Grand Trotting Match in England—Editorial; Foreign Correspondence, Letter to the Editor from M. Girod de l'Ain; Baltimore Flour Market—Sales of Tobacco—Latest Foreign News and Prices at Liverpool—Prices Current at Boston, Philadelphia and Baltimore—Almanac for the week.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets, where Printing of every description is neatly executed.

AGRICULTURE.

[In our last we gave the titles of several French pamphlets, with which Mr. Girod de l' Ain has favoured us, and we promised to give some extracts from those that might be profitable to agriculture in this country. Among them there is one by which our attention has been particularly attracted. It is an excellent treatise upon wool and sheep. Although many works have been published on that subject, from some of which we have given extracts, the one before us treats the matter under an aspect so new and interesting, and contains ideas and remarks so judicious and useful, and in many respects so applicable, as it seems to us, to the sheep husbandry of our own country, that we shall employ our leisure hours in translating it literally; and shall gratify our readers with such portions of it as we can find room for in the Farmer. We shall be happy if this work should appear valuable to them as it does to us, and aid in the promotion of the branch of industry of which it treats.

That which is given in the present number, is, as will be seen, merely introductory.]

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A NEW TREATISE UPON WOOL AND SHEEP,

By the viscount Perrault de Jotemps, Fabry the son *and* F. Girod de l' Ain, *all the three joint-proprietors of the flocks of Naz. Paris,* 1824.

(Translated from the French.)

Introduction.—Many works have already treated of the *Merino-sheep.* Several of them published by distinguished agriculturists, at different times, contain the most interesting and useful ideas on the management of these animals. We think it is not necessary to give here the titles of these works. They are sufficiently known, and the names of their authors are pronounced with gratitude by all those concerned in the agricultural riches of France.

We then should seem presumptuous in putting pen to paper after authors so highly and justly appreciated, if other circumstances had not just given a new aspect to the question with which they have been discussed; and if, with respect to industry connected with the Merinos as well to every other, it were not possible to proceed always in the way of improvement.

It is certain that this industry appears now under a true light, differing very much from that under which it was presented to us at the time of the first importations of the Spanish sheep into France, and even from what it was a few years ago.

For a long while, indeed, every one directed his efforts towards the introduction and multiplication of the Merino sheep; and to attain to that end, how many difficulties people were obliged to surmount; how many oppositions, prejudices and ancient practices to subdue amongst either the producers or manufacturers! Honour then to men whose zeal was not discouraged by obstacles, and whose labour has made our country rich with so valuable an acquisition.

But if the first period of experiment in regard to Merinos in France was almost exclusively appropriated to introduce and multiply that fine breed, the present should be the actual epoch of its improvement; for the production of the pure and mixed wools has increased in such a manner, particularly in foreign countries, that they have been brought plentifully into every market of Europe; and their depreciation has begun to spread discouragement among producers at home.

We think then the moment has arrived in which we are to direct our attention towards the amelioration of wool, for so long a time absorbed by the desire of creating the greatest *number* of Merino and mixed flocks that could be, and increasing the *weight* of their fleece; consequently the matter is now to be taken up less with respect to the *quantity* than with the *quality* of fleeces.

We will not begin an account of the circumstances that brought, almost against their will, the most enlightened agriculturists, and in imitation of them, the greatest number of proprietors of flocks, to improve the Merinos by increasing the weight of carcass and fleece. Those circumstances were without doubt very influential, since by embracing a system of rearing from which great size and heavy fleeces resulted, the producers seemed to consent to look upon superfineness of wool, as a thing but of secondary importance.

But without occupying ourselves with what happened or could have been convenient to do until now, relatively to the management of fine flocks, we will rapidly consider the state in which we now find this important branch of agricultural industry

We are at first astonished at perceiving the very low price to which our fine and mixed wools have fallen, whilst our manufacturers of the first order are obliged to get from foreign countries, and at a very dear rate, the materials destined to the fine products that secure every where their superiority and just celebrity.

Such a state of things, so prejudicial to proprietors, provoked their complaints, with which the Chamber of Deputies resounded. But instead of tracing the evil back to its first cause, they only required that an augmentation of duties might be established by the government on foreign wools. These duties have been increased fourfold, and nevertheless a new fall of the price of the indigenous fine wools has given the finishing blow of discouragement, and proved the truth of the fear which we had manifested on the efficacy of the remedy.

We think without hesitation it is urgent to relieve the industry connected with the Merino race, otherwise, we shall see its complete decay, even much sooner than could be anticipated; but we will not confine ourselves to calling for some impost laws or administrative measures for its aid. However judiciously combined and executed they might be, they would always be ineffectual if proprietors had not themselves an exact idea of their situation, and the true end towards which their efforts ought now to be directed.

Until now too little attention has been given to wool. The generality of the managers of flocks have taken a greater care of the *size* and *shape of their sheep,* and of the *bulk* and *weight* of the fleece, than of the *qualities* which make wool more or less fit for manufacturing. We must likewise say, according to truth, that for a long while many manufacturers appeared themselves unconcerned in that point; and that practices and prepossessions which seemed to be their only guide, opposed in a sad manner the improvement of this industry. Every one must remember, indeed, the disdain with which the French manufacturers received the first products of the imported flocks.

They then drew upon them just and true reproaches, since those prejudices, if it had not been for the men of whom we have spoken, would have destroyed in its beginning this precious industry. But those manufacturers instead of remaining stationary in the way of amelioration, have annually advanced in it; and as they have become more expert in manufacturing, they have acquired more perfect knowledge of the quality of the materials with which they are supplied. Therefore we are far from finding against them a cause of accusation in the preference which they give now-a-days to some foreign wools to those which France generally produces. This preference proceeds no longer from customs and prejudices, but from a practice enlightened by sure experiments.

In their turn, producers ought not to remain behind in giving an attention so indispensable to wool. We are persuaded that these cares and this increased attention can alone procure a better state of things for them. They must decisively renounce to cultivate without calculation; and, if we may say so, without discerning a particular sort of wool, which by its abundance in all the markets of Europe, suffers every year an increasing depreciation.

It is to be considered above all, that in many countries, there is, comparatively with France, an economy by one half, and even by three quarters of the expenses of production; and that the consequences which result from it, forbid us any exportation, if we do not ground our means of sale upon the superiority of our products.

Nobody now calls in question that in increasing the *size* of the sheep and the *weight* of its fleece, we have lost something in fineness of wool and adulterated the type of the Merino breed.

That system of management which, as we have said, arose from circumstances of the moment, ought to yield to another better contrived, and the application of which has become imperiously necessary As our principal intention in taking pen, is to look into the question of the Merinos under the new aspect in which we find it now, we have been obliged to examine thoroughly the *qualities of wool:* the further we have proceeded in this examination the more we have perceived the great importance of the matter. We do not then hesitate in treating at first all the questions which coincide with it, before we publish the result of our remarks and experience about the cares that flocks require, and about the better way of managing them. We would felicitate ourselves if we could diminish the discouragement which has seized upon many proprietors, and give to their efforts a more useful and profitable direction. France ought to take the lead in all kinds of industry; and if she has suffered herself to be outstript in that of the production of wool, she can easily recover the place which she ought not to have lost even for an instant. Every thing, indeed, goes to favour her in that point: the nature of her climate and soil, the improvement of her agriculture, and, above all, the happiness of possessing the first manufactures in the world.

Here is in a few words the plan which we have drawn. Our work will be divided into *two parts.* The first is to be consecrated to *wool.* We will here examine that first material in its display, its various properties, and the affinities of those properties with themselves and with the state of the skin and body of the sheep. We will also treat of some exterior circumstances which have, without any doubt, an influence upon wool; and we will speak of its qualities the most desirable for manufacture. This subject is so interesting that we would have certainly discoursed upon it at first, if to treat it conveniently we had not been obliged to lay down some principles and to give previous definitions. After that we shall pass on to the examination of the various sorts of wool, and to that of the fleece in the time during which it remains on the body of the lamb and adult Merinos. Lastly we will speak of shearing; of the order of fleeces; of picking and culling in the grease; of washing the fleece; of their value and sale; and we will sketch a plan for a new establishment, in the foundation of which proprietors of flocks would have certainly a great concern. The first chapter of this first part naturally is a little abstruse; and requires therefore particular attention, which we entreat our readers to give to it. For our own part we shall be strictly attentive in examining those theories only, the utility and exactness of which have been proved by practice.

In the second part of this work, which has the *sheep* for object, we will endeavour to search into the divers questions which belong to the management of those valuable animals. Though we particularly have the Merino-breed in view, we will not neglect to treat of common strains and crossings.

We will especially expatiate upon the choice so important of the sheep destined for reproduction, and upon the food and care which ought to be given to sheep, not only in respect to its health, but in that also of the improvement of their fleece. We will apply ourselves to give an account of the actual situation of the Merino flocks in France, according to the differences of the places or principles of management; and from that sort of statistical examination we will deduce some consequences and means of amelioration.

Determined to struggle with prejudices and to point out errors wherever they appear to us, we will readily and thankfully receive the observations which some of our assertions may suggest, and will consider as a duty the publication of those remarks which may contain just criticisms or new views.

(*To be continued.*)

IMPROVED SHORT-HORNS.

[Mr. R K. Meade, a very persevering and most zealous promoter of agricultural improvements, has lately addressed a series of essays through the Winchester Republican, to the farmers of Virginia, on the qualities of the improved Short Horn cattle;—we select for insertion this week, parts of these essays, omitting some portions of statements and reasonings that would not be new to the readers of the American Farmer.]

A very concise history of the origin of these cattle is now offered. It is from the pen of the Rev. Henry Berry, of Acton Rectory, England—a gentleman distinguished, not merely as an interesting and scientific writer, but as a sagacious breeder of cattle, who has gained on various occasions, honorary rewards for his essays as well as for his beasts.

To the banks of the river Tees, separating the counties of Durham and York, reference is to be had for an account of the originals of the improved short-horns. There, upwards of eighty years ago, existed a breed of cattle, for a description of which the author is indebted to an old and celebrated breeder now living,—in colour resembling what is called the improved breed of the present day, except that the fashionable roan was not quite so prevalent; they are described in general character also to have differed very little from their descendants. Possessing a fine mellow touch, good hair, light offal, particularly wide carcasses, and deep fore-quarters, they were also justly celebrated for extraordinary proof when slaughtered,—resembling thus closely their descendants of the present day. * * *

From all the information which can be collected, it appears that the breed of cattle thus described, was crossed with, and probably improved by, importations from the continent. Several spirited individuals, at that early period, had devoted much attention to the improvement of the breed of cattle then prevailing in the counties of Durham and York, and, amongst others, Sir William St. Quintin, of Scampston, imported cows and bulls from Holland. In due time, the produce of these animals was more widely diffused, and crossed with the best stocks of the country, which possessed the same characteristics, became distinguished as the *Teeswater short horns*, uniting, in a wonderful degree, good grazing and dairy qualities. * * * About eighty-five years have elapsed since Mr. Milbank devoted his attention to this branch of rural economy. * * * A cow, bred from his stock, and at that time the property of Mr. Sharter, of Chilton, slaughtered when twelve years old, having produced several calves, weighed upwards of one hundred and ten stone.[*] This cow was the daughter of the *old Studley bull*, one of the most celebrated ancestors of the improved short-horns He is described to the author by a person who often saw him, to have possessed wonderful girth and depth of fore-quarters, very short legs, a neat frame and light offal. He was the grandsire of *Dulton Duke*, bred by Mr. Charge, and sold by him, at the then high price of fifty guineas, to Messrs. Maynard and Wetherell, in whose possession he served cows, at half-a-guinea each. From the old Studley bull are also descended *William* and *Richard Barker*'s, and *Mr. Hill's bulls*, all animals of the highest reputation in their day, and the originals of the improved short-horns. * * *

Sir William St. Quintin imported several cows and bulls from Holland; and it may be added, that from him Sir James Pennyman, who possessed estates in the counties of York, Durham and Northumberland, and was desirous to extend this breed further north, obtained the cattle necessary for his purpose. From these he presented six cows and a bull to Mr. George Snowden, of Hurworth. * * * In the mean time, a person near Hurworth, having in his possession a cow which there was every reason to believe was bred from some of the stock which had been imported, she was on this account, and from her superior form and quality of flesh, thought worthy to be introduced to Snowden's bull, and her produce afterwards became an object of celebrity as the bull *Hubback*. This cow, when removed from her usual pasture in the highways to good land near Darlington, became so fat that she did not again breed, and was consequently slaughtered. Her son evinced the same extraordinary disposition to fatten, and became useless; which was also the case with *Bolingbroke*, and several of Mr. Colling's best bulls, until he adopted the plan of keeping them in the lowest possible condition. * * * It shall suffice to remark, that in Mr. C Colling's bull *Folijambe*, the Barningham and Hubback's blood were united: that this bull was the great grand-sire of *Comet*, and rendered, by Mr. C. Colling's own account, the most essential service to his stock. Should the reader feel desirous to trace the pedigrees of the animals here mentioned, he is referred to "*Coates's Herd Book*," where every particular is faithfully stated. * * *

As it regards the keeping of young cattle, and the training of milch cows, my own experience urges me to an increased attention. But as we consider ourselves principally a grain raising people, it may be important to ascertain what degree of labor, change, or care can profitably be bestowed; and what kind of food can be afforded and applied to the greatest advantage. If, from the circumstance of taking a special care of the young cattle, adding to our crops of hay, diminishing those of corn, (not of wheat and rye,) our young cattle of an improved breed can be made to produce much more milk, butter and beef, at the age of three than they otherwise would do at five, which I have no doubt would be the case, a general change might prudently be recommended;—even our own breed, kept in a growing and thrifty manner the first and second winter, would then be able to cope with the strong cattle, and would yield us fifty per cent. more in the same period, and save many from premature death. A calf separated from the cow at six or eight months old, and turned on dry food, having even to contend for that, and finally getting the most inferior, must lose the first and most important period of its growth. With regard to the invaluable milch cow which ought to be the aid and support of every poor or moderately situated family in our land, (instead of the more expensive and less healthy use of tea and coffee,) one would indeed suppose that the intimate connexion between the immediate comforts and luxuries, derived from her milk and butter, and the necessary supply of suitable provisions to produce them, would be a never failing stimulus to feed and protect her in the best possible manner. Is it really the case? On the contrary, is there not a shameful neglect of them, and double and treble the number kept to make up the deficiency (but in vain) produced by the want of proper management; a circumstance which leads into the fact of our keeping too much stock. Due care of the yearlings would enable us to breed from the heifers eighteen months sooner than we can now do with any kind of propriety, and time being money, we should be a considerable gainer; they are at the earlier period much more docile and more completely brought to the pail, also save no little trouble in keeping them from the bull for a year or two longer.

It appears to me that too much importance cannot be given to the improvement of our native breeds, provided it does not lessen a spirit for importation, or throw any obstacles in the way of disseminating improved breeds—effects, which I have no idea can ever exist; on the contrary, every excitement at home, will produce a further expectation of higher sources of improvement, and will create a demand in proportion to that excitement. Mr. Pickering is rather the advocate of depending principally on the improvement of our "native" stock, by careful and judicious selection; Mr. Powel, by the introduction of European stock, almost perfected, by the talents and labors of its *champions* through a period of more than half a century. It would be well for the country if both these gentlemen succeed to the extent of their wishes. But, would it not be exceeding bad policy in those who may be benefited by it, to oppose in any degree importations from abroad? None but wealthy individuals can afford it; and they alone can suffer by it, if indeed so meritorious an enterprise can be made without its just recompence; the great number certainly will be the gainers, and when there is a due proportion of disinterested feeling and honest pride in the desire of benefiting the community, mingled with such selfish views as lead to a fair and honourable accumulation and wealth in the importation or extraordinary improvement of live stock, it is certainly commendable in the highest degree, and I humbly conceive demands our countenance and support, both as a matter of feeling and interest.

On the other side, daily experience teaches us the benefits accruing from a minute and studied attention to the habits, qualities, and condition of what we call our native stock. Without this kind of devotion, even an improved breed might soon be lost (as has often been the case), in the imperfections of the old. I would much sooner take the chance of an attentive, observing intelligent farmer, who had no other means of improving than by selection from his common stock and that of the country, than the opportunity afforded by a cross of the finest short-horn, to one who had not some skill and energy to take advantage of the occasion, nor attention and industry to apply it with some degree of uniformity. But the great majority will bestow a moderate attention and would be possessed of a medium skill in its application. Now it is in this very circumstance, that the value of improved crosses will be perceived: a visible, immediate change, will be seen, acting as a further stimulus to exertion; whereas, the slow progress of native improvement, in the general, would damp the ardour of the attempt, requiring so much more skill, perseverance and patience, to accomplish the same end. But of the importance of judicious selection and additional care, I would promise to say more in future, (if I did not fear I was already proscribed for saying so much,) especially as the short-horns have an advocate in Mr. Powel so peculiarly adapted to the general undertaking, and so able and willing to defend and uphold them in all their ways through our extensive country.

This gentleman continues to import cattle at immense prices; some as high as [illegible]00 dollars, and I believe the average would be 4 or 500 dollars; and has latterly turned his attention to the importation of sheep. We may now expect the introduction of the different British breeds to facilitate our various kinds of manufactures. Shall we not unite in wishing him complete success in the undertaking; and that he will not only receive a reward in the sweet reflection that one of the best interests of his country will be promoted, but also a full remuneration for his trouble and expenditure. For my own part, I should rejoice to see any individual become wealthy through such means (not that I am an advocate for overgrown wealth in any person or place,) but that meritorious enterprise should meet with its recompense—and on a selfish principle also, that myself, in common with the community, would ultimately be a sharer in the benefit. The importer sells the offspring of his original stock at half the price he gave, to some one who can well afford to purchase, and he, in his turn, supplies a more distant breeder at a still lower rate, and so on, until their greater abundance affords all who wish it an opportunity of a valuable cross at least. But admit they are sold much higher after a fair trial of their merits; will it not be a still further proof of their excellence, of their fitness to render the most substantial benefits to farmers? I know there are some whose credulity will not easily yield to a belief of the wonderful weights and products of the improved breeds of cattle; but let it be remembered that though it is possible for individuals to misrepresent and impose for a while on the community, by certain ways and means, it is utterly impossible for a respectable community of farmers in this county to join issue with them; their testimony is then to be regarded as unquestionable.

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[*] Or 1540 lbs.; 14 lbs. to a stone.

GRASSES.

Mr. Skinner: *Shelbyville, Ky. May* 2, 1829.

Sir,—Having within the last two months visited the southern regions of Louisiana, and determined to remove to that country during the next winter, I have taken the liberty through the medium of your useful paper, to obviate a deficiency which I find prevalent through that whole region of country, so far as I have travelled; that is, a want of some kind of grass both for pasture and hay. The only hay used among the planters being crab grass, which grows spontaneously in their corn fields, after the corn is laid by; which is a precarious crop, of very inferior quality, when compared to timothy, clover, or any of the perennial grasses, which we use in Kentucky. When conversing with the southern planters upon this subject, three kinds of grass were mentioned, either of which it is supposed would answer the purpose; they were the Egyptian, the Bermuda, and Guinea grasses. If from any of the southern planters, a small quantity of each of the above mentioned seed could be obtained, and delivered at Baltimore, I could have it brought to Kentucky by one of the many merchants who annually procure their supplies of goods from that place; and if any of the southern planters have other kinds of grass which have been successfully cultivated in the southern country, a small quantity of each would be thankfully received and all the expenses attending the conveyance cheerfully paid

Thomas Hornsby.

STEAMING FOOD FOR CATTLE.

Answer to a Query in the 3d No. 11th Volume of the American Farmer.

Mr. Skinner: *New York, April* 20, 1829.

Sir,—A correspondent from Charleston, S. C. wishes to know the expense of Mr. S. T. Conn's patented apparatus for steaming food for cattle. The barrel or cylinder, holding 30 to 40 gallons, when made of wood, will cost $5 The stove and flue, with the cocks, valves and pipes, may be made for $20 to $25. If made of copper, the whole expense will be about $70. To these prices add the right of using, which will be very moderate. With a safety valve it may be used without the least apprehension of danger.

THE PLANTING OF TIMBER.

"I am but one year old," was the response of an aged Persian to the interrogatory of his monarch—"for it was but last year that I began to live for posterity *by planting out a tree*." When we consider that *all* the woods of Great Britain have been sown or planted by the hand of man, and witness the rapid diminution of our primitive forests, we cannot but appreciate the sentiments of the old Persian, and feel the propriety of imitating his example. The planting and preservation of timber forms now, in Europe, an important branch of national economy. An idea of their labours and usefulness may be formed from the declaration of Mr. Loudon, the enlightened editor of the Encyclopedia of Gardening and Agriculture, that in October last, he travelled "*for six days along a winding avenue of* FRUIT TREES, upwards of 250 miles, (from Strasburg to Munich)" consisting of the apple, cherry, pear, plum and black walnut. What a delightful feature must this form in the rural scenery of the country, during the seasons of blossoms and fruits. And how easily it might be imitated in the old settlements of our country.

I began these remarks with the view of recommending to our farmers the cultivation of the sugar maple as a means embellishing and enhancing the value of their estates, of multiplying their personal comforts, and in fulfilment of a duty to posterity. The subject was suggested by reflecting on the commendable beginnings which I witnessed last summer in different parts of the state, and particularly in the county of Louis, N. Y. of making plantations of this valuable tree. The attempts to preserve the forest growth of this tree have been unavailing. The trees are soon prostrated by winds when the other wood is taken away, and the lands around cleared. But when set out, of proper size, their habits early conform to their location, I saw many acres planted at regular distances, besides avenues of them on the highways.

J. Buel.

Albany, March 13, 1829

AMERICAN PATENTS.

For Extracting the Gum or Vegetable Matter from unrotted Flax or Hemp, after its being spun into rope yarn; Sands Olcott, Harsimus, Bergen county, December 1, 1828.

The yarn is to be coiled within tubs, or vats; these are to be filled with water, and the yarn allowed to soak for three or four days; at the end of this time, the water is to be drawn off, and renewed, and this repeated until it passes off perfectly clear. The yarn may then be tarred, or it may have the water wrung out, and be hung up to dry. The process may be hastened by elevating the temperature of the water.

The claim is as follows. "What I claim as new, and my own invention, or discovery, in the above described art, and for the use of which I ask an exclusive privilege. is, the process of extracting the gum or vegetable matter from unrotted flax or hemp, after its being spun into rope yarn, it being a much quicker and less expensive way of extracting it, than the old way of rotting it in the stalk, or cleansing it in the hurl."

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For an improvement in the Manufacture of Cloths; Isaac P. Hazard, and Rowland G. Hazard, Providence, Rhode Island, December 6, 1828.

The specification states that this improvement "consists in doubling and twisting two or more threads of cotton together for warp, and weaving wool on. The advantages of this process are, that a larger quantity of cotton can be combined in the cloth. giving it greater strength and durability."

"We claim as our invention, the manufacture of cloth in the manner above described, by doubling and twisting the warp, instead of using the single one, as commonly done."

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For an improvement in the Corn Sheller; Thomas J. Dean, Virgil, Courtland county, New York, December 6, 1828.

A conical roller placed horizontally, surrounded by rows of iron pins or teeth, set spirally, and turned by a crank, on one side. A piece of plank stands on one side of the cone, and is borne against it by springs. The ears of corn are dropped lengthwise between the roller and moveable plank, the former by its revolution removing the grain. Below this roller there is a fan turned by a strap, for blowing off the chaff, and leaving the grain clean. "The principal advantage of this machine over other inventions, is, that in this the corn and the cobs are effectually separated from each other."

Cylinders with teeth are in common use for shelling corn; the first machine made for this purpose, was, in fact, a toothed cylinder; the conical form presents little or no advantage, as the ears of corn taper but little, and except they were always dropped in the right way, the conical roller would manifestly be injurious. The merit of this patent seems to rest upon the use of the fan, which, had it been deemed necessary for the cleansing of Indian corn when shelling, would, from its constant use for smaller grain, present itself to any one as an appendage.

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For a machine for Cleaning Smut, White Caps, and other impurities from Wheat and other grain, called the Vertical Wheel Rubber;" Townsend Carpenter, Elmira, Tioga County, New York, Dec. 24, 1828.

A vertical wheel of wood, about 22 inches in diameter, is made to revolve on a shaft by means of a crank. Sixteen pieces of sheet iron cut narrow at one end, and wide at the other, are nailed upon one face of the wheel, so as to radiate from its centre, and reach its periphery, a space being left between each of the pieces equal to about one half their own width. These pieces of iron are punched in the manner of a grater, the rough sides being outward. A stationary plank, similarly covered, stands opposite to the face of the wheel. The grain to be cleaned, is contained in a hopper above, and as the wheel revolves, is rubbed between the two faces, passing out below, where it may be winnowed by a fan wheel placed there for that purpose. There are many parts which we have not attempted to describe, such as a casing for the wheel, regulating screws, &c.; but enough has been said to give a general idea of its structure.

Wheat cleaners with cylinders of sheet iron, punched with small holes with the burs outwards, have been constructed, and, we believe, largely used. The general principle of their action is the same with that described, although greatly differing in form.

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For a process by which the greatest quantity of Spirituous Liquor, or Whiskey, can be extracted from Indian Corn; James R. Nance, Floyd County, Indiana, December 27, 1828.

This being a recipe, we do not publish it without the approbation of the patentee.

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For an improvement in the inflections of the common Scythe Sneath, and in the nibs, or knobs, and in the mode of spoting; Silas Lawson, Sterling, Massachusetts, December 29, 1828.

This patent is taken for the particular inflection of the sneath, or handle, which the patentee prefers, and which he describes and figures To us it appears perfectly similar to many which we have seen in use; we, however, cannot pretend to judge on so delicate a subject as the proper flexure, and tortuosity, of the ligneous appendage to a scythe. The improvement in the nibs consists in having the sneath well seasoned, and fitting them without wedges. The other improvements we shall not at present attempt to describe, as we should give to this article greater length than it appears to us to demand.

For an improvement in the Repairing of Fences; Edward Pitkin, East Hartford, Hartford County, Connecticut, December 13, 1828.

There may be something novel in the subjoined plan of splicing posts, the bottoms of which have rotted off. We, however, have frequently seen the posts both of rail and board fences, spliced at the bottom in a manner so similar to that described and figured in the drawing in the office, that we are unable to tell the difference between the old and the patent mode. That our readers may discover it, we insert the following, which is the whole of the specification.

"This improvement consists in backing or splicing the posts when the bottoms are rotted off. A quarter of a round butt of any tree that is suitable for posts, and about seven feet long, is sawed in a slanting direction, half way across, about 2½ feet from one end, and on the opposite side, the same distance from the other end, and then split apart from one sawing to the other, making two backing pieces with a butt to stand in the ground. In case such timber is used as will not split, it may be sawed or hewed into a square shape of about six inches diameter, and sawed diagonally, from about two feet of one end, to about two feet of the other end.

"To repair a post when rotted off at the bottom, the post is raised up and kept in its place, at the height wanted—the backing piece set into the ground so as that the shoulder will be a little out of the ground, and then fastened to the back of the post, by two or more spikes (cut ones preferred.)

"When a five holed post is rotted off, so as to destroy the bottom hole, the centre of the post may be cut up to the next hole, and a backing piece cut off and slanted so as to fit in, the end coming up so as to form a bottom to the fourth hole, and a spike driven through the sound part of the post on each side, making in this way a four holed post. Posts to fences of all descriptions may be repaired in this way."

HORTICULTURE.

THE ELM.

The astonishing power with which God has endued the vegetable creation to multiply its different species, may be instanced in the seed of the elm. This tree produces one thousand five hundred and eighty-four millions of seeds, and each of these seeds has the power of producing the same number. How astonishing is the produce. At first, one seed is deposited in the earth; from this a tree springs, which, in the course of its vegetative life, produces one thousand five hundred and eighty-four millions of seeds. This is the first generation; the second generation will amount to two trillions five hundred and ten thousand and fifty-six billions. The third generation will amount to fourteen thousand six hundred and fifty-eight quadrillions, seven hundred and twenty-seven thousand and forty trillions; and the fourth generation from these would amount to fifty-one sextillions, four hundred and eighty-one thousand three hundred and eighty-one quintillions, one hundred and twenty-three thousand one hundred and thirty-six quadrillions—sums too immense for the human mind to conceive; and when we allow the most confined space in which a tree can grow, it appears that the seeds of the third generation, from one elm, would be many myriads of times more than sufficient to stock the whole superfices of all the planets in the solar system.

RURAL ECONOMY.

TO MAKE BUTTER IN WINTER.

MR. SKINNER:

Sir,—The avocations of an agriculturist are continually furnishing subjects, which afford the most pleasing employment, and especially when the series of experiments, therein resulting, are likely to terminate, not only in his own private interest, but in the general good of the community. Some of these subjects are of great moment. Others are of inferior consideration. But there is not one so inconsiderable as to be utterly unworthy of attention. To the class of minor objects may be referred the art of making butter in the *winter season.* Although I do not assign to this agreeable article of domestic economy a high rank among the various products of husbandry, yet as it contributes essentially to the daily comforts of man, it assuredly merits some portion of regard. To the chemical part of this manufacture my attention has recently been directed by a consideration of the difficulties experienced in the *winter* season in the dairies not only of this country, but of every cold country in Europe.

The ultimate analysis of milk, the basis of this delightful production, it is not my intention to discuss. It is enough for the present purpose to state that its proximate ingredients are oil, curd and whey; and that it is from the oil of milk that butter is made.

The constituent parts of milk are combined by the pores of chemical affinity. And as the oil has less affinity for the other ingredients, than those ingredients have for one another, it, by the *temperature of the atmosphere,* is separated from them; and, then, being specifically the lightest, it ascends to the top in the form of cream. This separation of the oily parts does not take place but on the surface, and only as deep as the warmth of the atmosphere may have penetrated. The obvious result, as verified by universal experience, is that much of the cream, contained in the milk, does not rise to the top, and that consequently all the butter is not made of which the milk is susceptible.

The common practice, in the summer season, in this part of our country, is to place the pans of milk in a stream of cold water flowing from a spring either in or contiguous to the dairy house. The coldness of the water, however, does not of itself produce the cream. It only has the effect of preserving the milk sweet, whilst the warmth of the atmosphere causes the cream to rise to the surface. The colder the water may be the longer will the sweetness of the milk be preserved, and of course the longer may be the time allowed for the accumulating of the cream. And hence it is, that the water is valuable in proportion to its coldness.

The common practice, in the winter season, is to place the pans in some warm clear apartment where the temperature of the air is, as nearly as possible, equable. In this situation the milk has to remain four or five days at least to produce its cream. From milk so *old* the cream acquires an unpleasant taste, which is necessarily imparted to the butter. But this is not all. The churning of butter from such cream is an irksome operation of four or five hours and sometimes longer. Such a tedious process is not only extremely tiresome, but it moreover has a tendency so to affect the butter as to render it white. And white butter is invariably insipid.

As cream ascends to the surface more sluggishly in winter than it does in summer, a much larger portion of it remains in combination with the other ingredients of the milk, and of course the butter made from a given quantity of milk, is less in winter than it is in summer, as well as inferior in quality.

As the rising of cream in the winter season requires the milk to remain for several days, and as butter of the first quality cannot be made from cream skimmed from milk that had been standing such a length of time, a process is desirable that would cause the cream to rise as soon in *winter* as in summer. Under such a process, a dairy establishment in the vicinity of Baltimore, has for some time been conducted. Reasoning from analogy, it was inferred that warm water might be substituted as a medium likely to produce the same effect in winter that the warm atmosphere does in summer. This hypothesis has been satisfactorily confirmed by an experience of several winters. The warmth of the water, penetrating the whole body of the milk in the pan, affects alike all the several parts. The oily parts, which constitute the cream, are by such pervading heat separated from all the other ingredients; and, then, from their specific lightness they rise to the top. As all such oily parts are affected by the warmth of the water, they all have a tendency to ascend. Cream, abundant, sweet and rich, is under this process during the coldest weather in winter, obtained in the course of 48 hours after the milk has been taken from the cow. And the operation of churning such cream never exceeds twenty-five minutes. Cream, thus quickly produced from fresh milk, will, in the nature of things, with ordinary attention, be perfectly sweet, and the butter therefrom, if made by a skilful person, cannot fail to be invariably of a fine flavor.

(From the Massachusetts Centinel.)

BEES.

Messrs. Editors.—I observed in the Centinel of the 6th inst. an article taken from the American Daily Advertiser, headed *Salt your Bees,* which excited my curiosity. The writer of the article describes minutely his interview with "*a worthy German*" by whose advice he put a *teaspoonful of salt* under each of his bee hives, as a preservative against the ravages of the worms; and even a part of this quantity was blown away by the wind.—Notwithstanding this disaster, however, more worms were found under the hives the next morning than had been seen the whole season before, and they were all dead! "I attribute this," says the credulous writer, "to the effects of the salt I put under the hives yesterday, at the recommendation of my friend, the *worthy German.*" It would, in my opinion, be much more rational to ascribe this slaughter of the worms to the stings of the bees, and if the writer and his German friend still have faith in the extraordinary efficacy of their antidote, let them have recourse to the ordeal by burying some of the worms in a bed of salt for several hours, to decide the question of life or death, and the result will probably cure their credulity. "No argument like matter of fact is." It was formerly recommended to wear the skin of a hyenna round the neck to prevent the hydrophobia, or to eat the liver of the mad dog as a remedy against the poison of its bite.

It appears that the writer of the article referred to has adopted the method recommended by some Apiarians of elevating his hives by supports under their corners to prevent the depedations of the bee-moth. But in this instance, as in many others, the method has proved to be ineffecual. A treatise recently published by Messrs. Marsh & Capen, on the management of bees, and the prevention of the bee-moth will be found to contain the requisite information on this subject.

There is one fact observable in the economy of bees, which to me is inexplicable. In the cold weather in the month of March, before a tree or shrub is in bloom, or any signs of vegetation were manifested, these industrious insects were seen returning to their hives with their legs loaded with balls of a substance resembling the pollen which they procure from flowers and blossoms in their season. If any curious observer can account for the manner in which this substance is manufactured, the information would be very acceptable. Medicus.

Plymouth, May 11, 1829.

INTERNAL IMPROVEMENT.

RAIL-WAYS.

J. S. Skinner, Esq. *Augusta, March* 30, 1829.

"The navigation of the Savannah river, below Augusta, owing to the washing of its banks, increased width of channel, and other causes, has become unusually disastrous. The following statement exhibits the losses sustained on Cotton alone, from the casualties of the river craft the present season, which, compared with the amount and quantity shipped, will be found to be equal to nearly 1½ per cent.

"The whole amount of Cotton shipped from Augusta and Hamburg, up to the 13th inst. has been ascertained to be 112,994 bales, which at $30 a bale, makes $3,389,820. The losses are equal to $49,160 on 1929 bales of cotton damaged and burned, or, as is above stated, nearly 1½ per cent." No notice is taken of the back freight and the injury it sustained. However, as the object of this paper is to prove the great value of Rail-ways, and their practicability in all parts of the United States, we will presume that on such a highway there would be such an augmentation of freight as to render their adoption every where a source of profit to the stockholders, and benefit to the public.

It is not too much to suppose that, taking no notice of the return freight, if the Rail-road was hid down between Augusta and Charleston there would be full 150,000; and, if common sense should be allowed to have any weight with the company, and common convenience be consulted, there would be a prospect of double the number. However, for the present, I will avail myself of the above invaluable document to shew the great advantages to be derived from the system in the section of country, of the navigation of which we have here stated the losses, in a period of time much less, I apprehend, than one year, and a portion of crop much less than the annual produce.

It is not too much to say, that if the Rail-road were laid down, there would be 160,000 bales to carry, which now cost full $160,000. They would, on a Rail-way, not cost more than $80,000—if to this we add the saving of the loss on $54,000, there would at once be a saving of $134,000, or at 6 per cent. on $2,233,333, which at $4,000 a mile would furnish 500 miles of Rail-way. But, if the losses on the Mississippi and its tributary streams, the Alabama, the Chatabooche, the Ogecchee, the Santee, the Pee Dee, the Cape Fear, and the Roanoke, were procured, there is little doubt but that a proof would be offered that Rail-ways laid down from the very banks of the Mississippi, and pervading every part of the absolutely flat and tolerably level country of the Mississippi, would not only answer a most valuable purpose, but by enabling us to avoid the navigation of the Gulf of Mexico and Cape Hatteras, bring the cotton to market at a rate infinitely cheaper and quicker than can be possibly done at present.

To demonstrate this important fact in a decided manner, all that is required is the aid of the United States government. If the secretary of the treasury would avail himself of the power he has in the seaports, there is little doubt but that we could soon learn the actual amount, or as near to it as would enable us to form a correct estimate of the loss annually sustained. And, if to this were added the amounts paid by the government, during the last war, for the conveyance of munitions, &c., I do not think there would remain a moment's doubt as to the propriety of their general adoption.

Nor would it be beneath the dignity of all the governors, (of the new states especially,) to aid in this inquiry. But to Virginia as possessing the Chesapeake, &c., it is most interesting.—However, as Tiberius never thought of a toll on the Appian or Emilian way, so I suppose the *constitutional* Virginian cannot dream of a road on which a toll is to be levied. However, it is possible the slight and unimportant fact that Rome had no commerce and the State of Virginia some trade, will tend to produce a correspondent result. For I really cannot but think if the Italian Provinces of Tiberius *had* raised six or seven hundred thousand bales of cotton to transmit to his British possessions, he *would* have levied a toll proportioned to the wear and tear of the above mentioned roads. More anon, Mr. Skinner, at present I am Yours, &c. Amphicon.

I add the particulars of the losses. By them it will be seen the risk from fire in carrying cotton in steamboats is enormous.

250	bales, damaged on board Lamar's boats, Nos. 4 and 9, actual loss, -	$4200
50	bales, on board M'Kenzie & Bennoch's boat, Samuel Clarke, loss -	900
22	bales on Butler's Petersburg boat, loss	500
738	bales burned on Steamboat Company's boat No. 17, loss - - -	22140
130	bales damaged on board Knight's boat Summer Duck, loss - - -	2200
89	bales damaged on board Shafford's boat, loss - - - -	1000
76	bales damaged on board Steamboat Caledonia, loss - - - - -	1000
574	bales burned on board Steamboat Company's boat, No. 5, loss - -	17220
1929	bales.	$49160

National Disbursements for Internal Improvements.

The following table is interesting, and we ask our readers to look at the *proportions* in which the resources of the Union have been dispensed for the benefit of the several states.

The following statement shows the amount of money expended in each State and Territory of the United States, upon works of Internal Improvement, from the adoption of the Federal Constitution to the 1st day of October, 1828:

Maine		$11,724 22
Massachusetts		104,042 45
Connecticut		2,069 97
Rhode Island		195 19
New York		68,148 45
Pennsylvania		39,728 32
Delaware		307,104 01
Maryland		10,000 00
Virginia		150,000 00
North Carolina		1,000 00
Kentucky		90,000 00
Tennessee		4,200 00
Ohio		390,150 03
Indiana		103,623 88
Mississippi		49,385 52
Illinois,		8,000 00
Alabama		81,862 78
Missouri		22,702 24
Arkansas		44,690 74
Michigan		48,607 95
Florida		76,902 92
Road from Cumberland to the Ohio	$1,662,245 75	
Continuation of the Cumberland road	454,547 36	
Repairs of the Cumberland road	55,510 00	
		2,172,303 11
Road from Nashville to Natchez,		3,000 00
Road from Wheeling to the Mississippi river,		10,000 00
Road from Missouri to New Mexico,		30,000 00
Road from Mississippi to the State of Ohio,		5,589 35
Road from Georgia to New Orleans,		5,500 00
Roads in Tennessee, Louisiana and Georgia,		15,000 00
Road from Nashville to New Orleans,		7,920 00
Surveys, maps and charts of the Ohio and Mississippi rivers,		4,136 24
Improving the navigation of the Ohio and Mississippi rivers,		103,409 72
Military roads,		10,218 43
Survey of the water courses of the Mississippi river,		11,122 05
Road through the Creek Nation,		3,621 01
Opening the old Natchez road,		5,000 00
Breakwater at the mouth of Delaware bay,		5,000 00
Total,		$4,179,549 06

LADIES' DEPARTMENT.

(From the New Monthly Magazine.)

AN EVERY DAY CHARACTER.

Fallentis semita vitæ—Hor.

Near a small village in the west,
Where many very worthy people
Eat, drink, play whist, and do their best
To guard from evil Church and Steeple,
There stood,—alas! it stands no more!—
A tenement of brick and plaster,
Of which, for forty years and four,
My good friend Quince was lord and master!

Welcome was he, in hut and hall,
To maids and matrons, peers and peasants,
He won the sympathies of all
By making puns, and making presents:
Though all the parish were at strife,
He kept his counsel, and his carriage,
And laugh'd, and loved a quiet life,
And shrank from Chancery suits and marriage.

Sound was his claret and his head;
Warm was his double ale, and feelings,
His partners at the whist club said,
That he was faultless in his dealings—
He went to church but once a week;
Yet Dr. Poundtext always found him
An upright man, who studied Greek,
And liked to see his friends around him.

Asylums, Hospitals, and Schools,
He used to swear were made to cozen;
All who subscribed to them were fools,
And he subscribed to half a dozen;
It was his doctrine that the poor
Were always able, never willing;
And so the beggar at his door,
Had first abuse, and then a shilling.

Some public principles he had,
But was no flatterer, nor fretter;
He rapped his box when things were bad,
And said, "I cannot make them better!"
And much he loath'd the patriot's snort,
And much he scorn'd the placeman's snuffle;
And cut the fiercest quarrels short,
With—"Patience, gentlemen, and shuffle."

For full ten years his pointer, Speed,
Had couch'd beneath her master's table;
For twice ten years his old white steed
Had fatten'd in his master's stable—
Old Quince averr'd, upon his troth,
They were the ugliest beasts in Devon;
And none knew why he fed them both,
With his own hands, six days in seven.

Whene'er they heard his ring or knock,
  Quicker than thought, the village slatterns
Flung down the novel, smooth'd the frock,
  And took up Mrs. Glasse, and patterns;
Adline was studying bakers' bills;
  Louisa look'd the queen of knitters;
Jane happen'd to be hemming frills;
  And Bell, by chance, was making fritters.

But all was vain: and while Decay
  Came like a tranquil moonlight o'er him,
And found him gouty still, and gay,
  With no fair nurse to bless or bore him;
His rugged smile, and easy chair,
  His dread of matrimonial lectures,
His wig, his stick, his powder'd hair,
  Were themes for very strange conjectures.

Some sages thought the stars above
  Had craz'd him with excess of knowledge;
Some heard he had been cross'd in love,
  Before he came away from College—
Some darkly hinted, that his grace
  Did nothing, great or small, without him,
Some whisper'd with a solemn face,
  That there was something odd about him!

I found him at three-score and ten,
  A single man, but bent quite double;
Sickness was coming on him then,
  To take him from a world of trouble—
He prosed of slipping down the hill,
  Discover'd he grew older daily;
One frosty day he made his will,—
  The next he sent for Dr. Bailey.

And so he lived,—and so he died!—
  When last I sat beside his pillow,
He shook my hand—"Ah!" he cried,
  "Penelope must wear the willow.
Tell her I hugg'd her rosy chain
  While life was flickering in the socket;
And say, that when I call again,
  "I'll bring a license in my pocket.

"I've left my house and grounds to Fag—
  (I hope his master's shoes will suit him:)
And I've bequeathed to you my nag,
  To feed him for my sake—or shoot him.
The Vicar's wife will take old Fox,—
  She'll find him an uncommon mouser;
And let her husband have my box,
  My Bible, and my Assmanshauser.

"Whether I ought to die or not
  My doctors cannot quite determine;
It's only clear that I shall rot,
  And be, like Priam, food for vermin.
My debts are paid;—but nature's debt
  Almost escaped my recollection!
Tom!—we shall meet again; and yet
  I cannot leave you my direction!"

An act by which we make one friend and one enemy is a losing game; because revenge is a much stronger principle than gratitude.

SPORTING OLIO.

Canton (Baltimore) Races.

First day's race, (May 27,) over Canton Course, four miles and repeat for $300, was won by Mr Dixon's horse Industry, by Sir Archie, distancing Mr. Irvine's horse Bob Cracket.

Second day.—Three miles in less than 6 minutes; won by Jumping Jemmy—particulars in our next.

At the Washington Races on Thursday week, Mr. Dixon's horse, Young Rob Roy,[*] beat Major Andrews' filly, by Rattler, out of a Sir Archie mare—2 mile heats.

Tree Hill (Virginia) Races.

First day.—Two sweepstakes—for three year old colts, mile heats—entrance $100.

First Stake.

John Baker's b. f.	4	4	dist.
J. J. Harrison's b. f.	2	3	3
O. P. Hare's s. c.	3	1	1
James M. Selden's s. c.	1	2	2

Time—First heat 1 m. 57 s.; second do. 1 m. 59 s.; third do. 2 m. 8 s.

Second Stake.

J. M. Botts' s. f. by Sir Charles,		3	dist.
J. M. Selden's b. c.	do	2	2
John Colgin's s. f.	do	4	3
Richard Adams' s. c.	do	1	1

Time—First heat 1 m. 55 s.; second do. 1 m. 55½ s.

Second day.—Proprietor's Purse, two mile heats, $300.

Wm. R Johnson's s. m. T. C. by Sir Charles,	3	dist.
James J. Harrison's b. h. Corporal Trim, by Sir Archie,	2	2
David H. Branch's b. m. Polly Hopkins, by Virginian,	1	1
Hector Davis' b. m. Kitty Willis, by Handel,	dist.	

Time—First heat 4 m.; second do. 4 m. 4 s.

The course very heavy.

Trotting.

An unusual and interesting trot took place for the second day's purse, on the Long Island trotting course; after which, a sweepstakes purse, free for trotters, pacers and rackers, was awarded to the winning horse. The first in harness, three miles and repeat, was admirably contended for, between Epraim Smooth and Sir Peter. There were three heats—the first was won by Ephraim, performing the three miles in 8 m. 21 s.

The second heat by Sir Peter, in 8 m. 23 s.

And the third heat was won by Ephraim by about one length, in 8 m. 28 s.

The sweepstakes purse, two miles and repeat, was most astonishingly and beautifully contended for between Fireaway, Bowery Boy, Jersey, Tub and Cato. The first and second heats were won by Fireaway in 5 m. 20 s., and 5 m. 16 s.

JOHN STANLEY.

The public are respectfully informed that the celebrated thorough bred horse John Stanley, will be kept for service this season, in the city of Lancaster.

Pedigree.—John Stanley was foaled in May, 1818, gotten by Sir Hall, the best son of the imported Sir Harry; he by Sir Peter Teazle. Hall's dam by the imported horse Saltrom; he by Col. O'Kelly's Eclipse. Stanley's dam Ariadne was gotten by the imported horse Citizen, who was imported by Gen. Carney, of North Carolina—he was by Pacolet—he by Blank, and Blank by the Godolphin Arabian. Thus the united blood of Sir Hall, Sir Harry, Sir Peter Teazle, Highflyer, Snap, Regulus—and on the side of the dam, Citizen, Pacolet, Blank, Godolphin Arabian, are equal to any other junction or cross ever known in America. Sir Peter Teazle was foaled in 1784, and got by Highflyer—who was foaled in 1774, and got by Herod. He was bred by the Duke of Cumberland, foaled in 1758, got by Tartar. He was bred by Mr. Leeds, foaled in 1743, got by Partner, who was bred by Mr. Cropts; foaled 1718; got by Figg, who was got by Capt. Byerley's Turk. Capt. Byerley's Turk was his charger in Ireland in King William's wars in 1689, and was afterwards the sire of Figg, Sprite, Black Harty, Archer, Basto, Grasshopper, the Byerley Gelding, and many more capital runners.

Copy of a letter dated Petersburg, September 2, 1825.

Performance.—John Stanley, at 3 years old in the spring, won a sweepstakes on the New Hope course, at Halifax, North Carolina, five subscribers, $200 each, entrance, beating Betsey Richards, Coalition and two others. Same fall he won the great stakes at New Market, 2 mile heats, 7 subscribers, $500 each, beating Betsey Richards, Sumpter, and two others. The spring he was four years old he won the Proprietor's Purse at New Market, three mile heats, four starting, purse $300. Same spring he won the Jockey Club at Spring hill, beating Tyro, Col. Wynne's grey Sir Archy mare, and one other. The fall after he was four years old, he won the Jockey Club at Spring hill, beating Mr. Baker's Sir Hall, and Mr. Mackler's Sir Archie mare. The fall he was five years old, he won the Jockey Club at Mr. Moodey's, in Chesterfield, beating four others. The horse John Stanley, sold by me to Mr. Edward Parker, won the above races to my knowledge—the time I do not recollect, and cannot tell without examining the records. But I very well know that some of them were quick, and considered distinguished runs. Given under my hand this 2d day of September, 1825. W. R. Johnson.

RATTLER.

This beautiful young horse will be kept for service, the ensuing season, at the same stable with John Stanley.

Pedigree.—He was foaled in 1825, the property of William Anderson, Esq. He was got by old Rattler, who is full brother to the celebrated Flirtilla, Sumpter and Childers, who were got by Sir Archie; he by the imported horse old Diomed, his dam by the English Rockingham. Rattler's dam by the imported horse Robin Redbreast, and Robin was by Sir Peter Teazle, grandam by the capital imported horse Obscurity, bred by Lord Milford.—Young Rattler's dam was by old Prizefighter, who was by the imported horse Expedition; Prizefighter's dam was by the imported horse Messenger, bred by John Pratt, Esq. of New Market, and died, the property of Mr Van Rance, of New York, January 28, 1808, aged 28 years, was sired by Malambrina, he by Engineer, he by Sampson, the sire of Bay Malton, who was got by Blaze, who was got by Flying Childers, a son of the Darby Arabian. Young Rattler's grandam was bred by Col. Luffborough of Virginia, she was got by the imported horse Spread Eagle, one amongst the finest horses ever imported into Virginia.

At the late cattle show the committee on Horses, report, that they consider Mr. Edward Parker's colt Rattler, entitled to a premium, as the best thorough bred colt They further report their admiration of Mr. Parker's beautiful thorough bred horse John Stanley, pre-eminently distinguished, by symmetry, action, and elegance, above all they have ever seen at this show.

Signed, Mandel Eyre,
John G Watmouth,
Thos. Penn Gaskill, } *Committee.*
Henry L. Wardell.

N. B. Pasture will be provided for mares from a distance, and every attention paid to them, but accidents and escapes at the risk of the owner.

For terms and further particulars inquire of the subscriber, at *Parker's Hotel*, in the city of Lancaster, Pa. EDWARD PARKER.

March, 13.

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[*] [It would be well if no horse could win a race, whilst he bears the same name that any other horse ever did—how surprising that owners of horses will persevere in a practice which so evidently leads to mistakes and confusion.—*Ed. Am. Far.*]

MISCELLANEOUS.

PROTECTION AGAINST DAMP, RUST, &c.

By John Murray, F. S. A., F. L. S., &c.

I find that if linen or woollen cloth be immersed in water, saturated with *quick lime and sulphate of soda*, and then carefully dried, delicate steel instruments folded up in it, even if themselves damp, are effectually preserved from rust or oxidation. The rust of iron is found to contain a carbonate of that metal, and the aqueous particles of "wet," and "damp," are, it is proved, decomposed by the contact of iron at all temperatures, and with increased effect at an elevated one; hence, the formation of rust, or oxidation, &c. It is probable that the caustic lime not merely absorbs any minute quantity of carbonic acid present in the air, and by damp brought into more immediate contact with the iron or steel, but also absorbs the first portions of present damp; perhaps, too, caustic lime may even take up *oxygen*.

The efflorescent sulphate of soda does not attract humidity, but rather casts it off, parting even with its own water of crystallization.

It is evident that an envelope of cotton or woollen cloth, saturated as described, would not only be a protection against damp in the case of steel, plate, &c., but also of equal value for the preservation of deeds, &c., whether on paper or parchment.

Steel articles, &c. may be very well preserved, if buried in powdered quick-lime.

From a number of experiments I have made by suspending, by means of a silk, &c. thread, finely polished and magnetized steel bars in *lime water*, so as to float freely in this medium, from the point of suspension, I have concluded that it points out an admirable method by which the magnetic virtue may be preserved for an indefinite period. A ring of iron, inclining to the "angle of no attraction," pointed out in Mr. Barlow's Researches, might surround the phial or little glass globe, and the cardinal points be engraved by a diamond on a circular line, externally. Under these circumstances, poised in a uniform medium of unvarying density, no atmospheric mutations would disturb it, and the finely polished steel needle would be preserved even free from oxidation, the fatal antagonist to magnetism.

THE FARMER.

BALTIMORE, FRIDAY, MAY 29, 1829.

☞ We were requested by Capt. Basil Hall, of the British Navy, to supply him with information in regard to the system for supporting the poor in this state, and with documents explanatory of the public expenditures and income of the several states; to obtain the latter we addressed ourselves to the Governors of each of them with a confidence in their courtesy which has been fully justified by the result—having been furnished promptly, in almost every instance with the necessary official documents. The answer of his excellency the Governor of Alabama is the last received, and was accompanied by the following letter on the resources of that state, which, without his permission, but anticipating his acquiescence, we venture to lay before our readers, as it gives an interesting view of the products and prospects of one of the youngest sisters of the republican family.

Executive Department,
Tuskalooza, May 2d, 1829.

DEAR SIR:

I have now the pleasure to forward to you the information which you wished in regard to the finances of this state. The annual amount required to be levied and collected for the support of government bears but a small proportion to the annual income of the state, arising from produce annually exported alone. The annual exports, cotton, grain, lumber, staves, &c. cannot be short of seven millions of dollars. We do not therefore pay for the support of our government one per cent. on our income from produce sent out of the state. We shall soon raise almost every thing necessary for our consumption. There is every probable expectation that a new staple will soon be introduced among us, I mean that of sugar. All the experiments heretofore made have resulted favourably, and during the present year the cultivation of the sugar cane will be very much tested. It will always afford me pleasure to give you any information in my power respecting the progress and prospects of this state.

I am very respectfully yours, &c

JOHN MURPHY.

J. S. Skinner, Esq. Baltimore.

☞ HEALTHINESS OF BALTIMORE.—Out of a population of 70,000 there were last week only 21 deaths—of the coloured people it is remarkable that there was not a single slave. The fact would be curious if a calculation were made to ascertain it, by what per cent. the state and condition of slavery, as it exists in this country, prolongs the life of the colored race—That it does so prolong it we have no doubt; —some of the moral and political deductions that result from the fact are equally obvious and undeniable. For the coloured race, if not also for lazy and drunken whites, true benevolence inculcates slavery, with strict but humane treatment; or colonization if practicable.

[In utter disregard of demonstrations like the following, not one farmer in fifty, throughout the state can treat his family or his guest, in season, to a bunch of grapes cultivated by his own hands.]

A REMARKABLE GRAPE VINE,

Reared by that skilful Horticulturist, John Willis, Esq. Collector of the Port of Oxford.

On the 25th of March, 1822, I planted a small layer of the Jersey grape vine in my yard, of which, I intended to make an arbour, and produce delicious table fruit, as I had found the fruit fine, hangs long, and very desirable—the place is somewhat encumbered with about half a dozen valuable fruit trees, and the first two years the vine made very little growth; neither was there much notice taken of it; the third year it made a surprising growth, and took the attention of many strangers. I then tried the best skill I was master of to force and encourage the growth. The fourth year it so far excelled my most sanguine expectations, and began to smother a fine bearing pear tree, and appeared to threaten some more trees, that I pruned off of the south and east side of it about one hundred and sixty cuttings; and found it, in the fifth year to extend (where not close pruned,) each way, about thirty five feet or more; and last spring, it was so laden with fruit, that I was going to have the bunches counted, (as it is the bunch grape,) and they are of tolerable good size; but we were visited by several hail gusts, which destroyed so many of them that I declined having the balance counted. Now it is again well laden with fruit; and I have, this day, invited some of my neighbours together to come and count them, which could not be done, only, I have drawn lines through the vine in fourteen places, so that they may count between them—all double bunches are only counted as single ones; and you have their certificate at the bottom; and if you please, you may give it a place in your most valuable work. Now the grapes are out of all danger, (except hail gusts, &c.) Those gentlemen know the planting and management of this vine. I only call it five years' growth, though planted seven. Now, how much do you suppose the Great Hampton Court Palace vine, planted in the reign of king William,[*] could have excelled this, at five years' growth?

To J. S. SKINNER, Esq. JOHN WILLIS.

Oxford, May 23, 1829.

We the subscribers do hereby certify that we have this day counted the bunches of grapes on Mr J. Willis's splendid vine, and find the number to be 13,815,[†] amongst which we suppose nearly half to be double, although counted as single. We further state that we have known said vine nearly from its planting, and can affirm the statement of Mr. Willis to be correct in every respect. We also took the circumference of the vine near the ground, which is only 7½ inches.

THOMAS WATTS,
RICHARD MARKLAND,
JAMES STEWART, JUN.

☞ A correspondent in Virginia wishes to obtain the pedigrees of the stallions Hambletonian and Comet. Those who possess them will oblige the Editor by furnishing him with the same.

☞ A correspondent wishes to know whether Farnham's Grater Cider Mill answers the purpose, and if so, what is their price, and where may a couple of them be had?

SPANISH TOBACCO SEED.—We were unfortunately too late in writing to that highly respectable and trust-worthy commercial agent at Havana,—Anthony Faulac, Esq for seed of the genuine Havana segar tobacco.—We have already taken measures to procure a supply for the next season, and feel well assured that it will afford Mr Faulac pleasure to answer, in that respect, our wishes, and those of our friends who are connoisseurs of that *sweet scented* plant.

TRANSPLANTING CEDARS.—About the year 1820, in the month of February, *when there was no frost in the ground*, I took up about eighty *small* cedars, retaining a small ball of earth about each, and planted them for a hedge. More than seventy of them are now living, and form a pretty close hedge, which has been trimmed to about breast high for several years. N.

☞ In a little work called *Voyages aux Alpes*, which has recently been published in Paris, a curious account is given of an avalanche which occurred in Switzerland many years ago. During the absence of a Swiss farmer his cottage and stable were, by the fall of the avalanche, enclosed in snow; his wife and daughter were at the time in the stable. Six weeks afterwards, the snow having melted a little, an opening was effected, and the two females were found alive, having been supported by the milk of the cow during that long period. The space left free from the snow was sufficient for air, and fortunately there was a good winter's stock of provisions for the cow near the stable.

BALTIMORE MARKET.—There is no change in the price of Howard street flour to notice—the wagon price still being $6, a $6 12½; and no sales to establish rates from stores. We have heard of a few small sales at $6.25, but they are not considered as at all indicative of settled rates. Our quotations may therefore still be considered nominal. There was an error in our quotation of Rye last week—it is now correct. *Live Stock.*—There is no change in the prices of beef on the hoof, from last week's rates—little coming in, and no sales of lots of particular interest.

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[*] See Cobbett on Forsyth, page 79.

[†] For the table about 440 bunches a day for thirty days from one vine!—*Ed. Am. Far.*

Latest Foreign News.

By the packet ship Napoleon, intelligence has been received at New York, from Liverpool to the 24th, and London to the 22d April, inclusive—being two days later than the date of our last previous advices.

Market for cotton, wheat and flour, low and dull. The American flour recently imported into England, had been chiefly placed in bond, present duties being too high, and prices too low, to afford a remunerating value.

The 20th of April, as the London Courier informs us, was fixed for the Russian army to cross the Danube, and enter Bulgaria. Whilst the sieges of Silistria and Giurgevo were passed, the main body would, it was supposed, pursue the same route it took last year to Choumla, and the Balkan. They are not likely to meet any serious opposition till they reach that point. The Courier adds—"We had hoped that a mutual desire of peace, would have induced the belligerents to avail themselves of the winter months for negotiation. Unfortunately that hope has been disappointed."

The Russian Head Quarters are not to be removed from Jassy till the 27th of April, owing to the wretched state of the roads.

Portugal.—A letter from Lisbon of the 11th inst. in addition to horrible details respecting the cruelties committed in the dungeons, which continued to be crowded with victims, and the arrests of all classes, states, that the agitation among all classes is such, that if two Brazilian frigates approached either Lisbon or Oporto, a revolution would immediately be effected, and the usurper be banished. An order was issued on the 11th, prohibiting the departure of vessels for the Azores and Madeira. The expedition designed against Terceira was still in the Tagus. Great damage had been caused by inundations of the river, the banks of which were still overflowed, and the most serious disasters were anticipated to the harvest. Twenty-six persons of rank and property were lying under sentence of death at Oporto.

The situation of the country becomes worse and worse, and as one of the letters says, "Either an end must be put to the present state of things, or this small kingdom must cease to exist."—There is evident alarm on the part of the government, and an inference is drawn from its anxiety to get as much specie as possible, that the possibility of flight begins to be contemplated; it is even rumored, that in the event of Don Miguel's being unable to retain the regal powers, he would prefer seeing the kingdom reannexed to the kingdom of Spain, to its remaining a separate state under any other member of the House of Braganza. The great European powers would not permit any such junction. Spain and Portugal must remain separate and independent states.

We conclude this article by an extract from one of the letters, and we are assured that the picture is not overcharged, or too deeply coloured:—

"Trade in this country is entirely at a stand.—The shop-keepers even shut up their shops; nobody buys their commodities, and bankruptcies are numerous, At Oporto a celebrated house, known to all the mercantile world, has failed.

"Sequestrations are another of the plagues of Egypt with which this devoted country is scourged. According to the system of justice pursued by the Janissaries of Don Miguel, all magistrates and harpies of the law who are engaged in these sequestrations, derive their emoluments from the sequestrated estates; so that they no sooner get into a house than they begin to rob and plunder without restraint. The property is sold to the friends of these people for an inadequate price; so that though the individuals are ruined, the government is not much benefitted by this branch of public rapine.

"The banks of the Tagus are still overflown, and threaten to add famine to the other calamities of Don Miguel."

From the London Prices Current of April 21.

Tobacco.—The demand remains inactive and until a farther reduction in prices occurs, a revival is not looked for, the quotations in foreign markets being lower than here. Since the late speculation on the expected increase of the duty on stemmed Tobacco, the market has been drooping, and prices may be quoted full to 1d to 1½d lower.

Corn Exchange, April 22.—The supplies of grain of all kinds up to this day's market were very small. There was very little life in the wheat trade this morning, and the sales effected were to a very limited extent, and confined chiefly to the finest descriptions, for which the quotations of Monday were generally obtained. In barley, there was a dull sale except for the finest malting samples, which moved off rather quicker and on full as good terms as on Monday. Flour remains dull and without any alteration in value.

Liverpool Markets, April 24.

The sales of cotton thus far, this week, are 13,000 bags—imports 23,000, viz. 11,200 American; 4,200 Brazil; 1,400 Egyptian; 100 Demararas, and 6,100 Surat. Holders are bringing forward the recent imports with considerable freedom, but do not appear inclined to press sales at lower prices, and the transactions this week have been at the full previous currency—Upland at 5 a 5¼d., is chiefly inquired for, and small parcels of prime would bring comparatively high prices. The bulk of the sales has been to consumers, though we cannot notice any change for the better in the state of trade at Manchester. Rice is lower, 100 tierces of good new having been disposed of at 17s. 9d a 18s. per cwt.—Flaxseed, 100 casks brought 76s. per hhd.—The grain market is very dull, but no change in prices, some small parcels of flour, duty paid, sold at 33s. 6d. per bbl.—Tobacco, the sales have not exceeded 50 hhds. at former prices.

Prices Current in Boston, May 22.

Apples, best, bbl. $3.00 a 5.00. *Beans*, white, bushel 1.00 a 1.37. *Beef*, mess, bbl. 10.25 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 8.00 a 8.60. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 7.00 a 7.12; Genesee, 7.00 a 7.50; Rye, best, —. *Grain*, Corn, bush. .60 a 62; Rye, .70 a .80; Barley .67; Oats .34 a .37. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 16.00 a 16.50; Navy, mess, 13.00 a 13.50; Cargo, No. 1, 13.00 a 13.25. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel 1.50. *Wool*, Merino, full blood, washed, .30 a .37; do. do. unwashed, .22 a .24; do. three-fourths washed, .25 a .30, do. half and quarter washed, .22 a .26; Native, washed .20 a .25; Pulled, Lambs', 1st sort, .35 a 37; do. 2d sort, .22 a .28; do. spinning, 1st sort, 27 a .30.

Prices Current in New York, May 23.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .10 a .12; Upland, .8¾ a .10½; Alabama, .9 a 11. *Cotton Bagging*, Hemp .19 a .21; Flax .15 a .18. *Flax*, American .8 a .9. *Flaxseed*, rough, tierce ——; clean ——. *Flour*, N. York, bbl. 6.75 a 6.87½; Canal 7.00 a 7.37; Baltimore Howard st. 7.25 a 7.37½; Richmond city mills, 7; country, 6.87½; Alexandria, 6.87½ a 7.00; Fredericksburg 6.75.; Petersburg, 6.75; Rye Flour, 4 12½ a 4.25; Indian Meal, per bbl. 2.50; per hhd. 13.00 a 13.50. *Grain*, Wheat, Virginia 1.35 a 1.38; N. Carolina 1. 40 a 1.50; Rye, North, .71 a. 73; Corn, Yellow, North, .56 a .57; Barley, 55; Oats, South and North, .34 a .42; Peas, white, dry 7 bu. ——; Beans, 7 bu. 8.00 a 8.50. *Provisions*, Beef, mess 10.00 a 10.50; primo 8.00 a 8.50; cargo 6.00. Butter, N. York, —— a.—; shipping, .8 a .11; Lard, .5 a .6; Pork, mess 12.50 a 13.00; prime 9.75 a 10.12; cargo 9.00 a ——; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* .2¾ a .3. *Tobacco*, Virginia .3½ a .5½ a .6½; Kentucky, .3½ a 5½ a .6½. *Wool*, Merino, American fleece, .32 a .38; Pulled, .32 a .35; common, .18 a .25; Pulled, spinning, .18 a .30.

ALMANAC.

1829. May—June.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 30	4	43	7	17	14	34	3	21
Sunday,........ 31	4	43	7	17	14	34	4	2
Monday,....... 1	4	42	7	18	14	36	7	19
Tuesday,...... 2	4	42	7	18	14	36	8	15
Wednesday,.. 3	4	41	7	19	14	38	9	5
Thursday,..... 4	4	41	7	19	14	38	9	50
Friday,......... 5	4	40	7	20	14	40	10	29

New Moon, 1st, 0 h. 42 m. Ev.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

Tobacco.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 6.00—red, 5.00 *a* 8.00—fine red, 8.00 *a* 10.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red 8.00 *a* 12.00—fine yellow 10.00 *a* 20.00—Rappahannock, 4.00 *a* 6.00—Kentucky, common 5.00 *a* 7.00—wrapping, 6.00 *a* 8.00.

Flour—best white wheat family, $7.50—superfine Howard street, 6.50; city mills, 6.25 *a* 6.50; Susquehanna, 6.50—Corn Meal, bbl. 2.50—Grain, best red wheat, 1.20 *a* 1.30—best white do. 1.30 *a* 1.50—ord. to good, .70 *a* 1.25—Corn, white, .38 *a* .40; yellow, .41 *a* .43—Rye, .50 *a* .55—Oats, .28 *a* .32—Beans, 1.00 *a* 1.25—Peas, .55 *a* .60—Clover seed, 4.00 *a* 4.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—Barley, .45 *a* .50—Flaxseed, 1.00—Cotton, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alab. .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Geo. .9 *a* .12—Whiskey, hhds. 1st pf. .23—in bbls. .24 *a* 25—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 3.75 *a* 4.00; No. 2, 3.50 *a* 3.75—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Balt. cured, new, .9½ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .29—Plaster Paris, cargo price per ton, $7.00, ground, 1.37½ bbl.—Prime Beef on the hoof, $5.50 *a* $6.25.

Marketing.—Apples, per bu., $2.00; Strawberries, 37½ *a* 50 per quart; Peas, 2.00 *a* 2.50 per bu.; Squabs, 18¾; Young Chickens, 3.50 *a* 4.00 per doz.; Butter, lb. .31¼ *a* 37½; Eggs, .10 *a* .11; Potatoes, Irish, bush. 1.00 *a* 1.50; Fowls, doz. 3 *a* 3.75; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .87½; *a* 1.00 Sausages, lb. .8; Shad, 10.00 *a* 12.00 per hundred; Terrapins, 4.00*a*4.50 per doz; Pork, 5.50*a*6.00 cwt.

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AGRICULTURE.

A NEW TREATISE UPON WOOL AND SHEEP.

(Continued from page 82.)

Part 1.—Wool.

Chapter I.—*General considerations upon Wool.*

Section 1.—*Of the fibre of Wool, of its nature and developement.*

Chemistry which, in our days, has brought certain branches of the national industry to so great an improvement, does not seem to have been applied enough to wool: it has, without doubt, analysed the substances of which this primary material is composed, as well as it has done for the hair in general; but it was not in a peculiar view of practical utility. However, agriculturists and manufacturers expect precious lessons from that science.

It is for it to observe the fibre of wool from its birth to its entire developement, and from the instant in which it is separated from the body of the sheep to that in which it is used in the manufacture of the various sorts of stuff; it is yet left to it to examine the influence which some exterior circumstances may exercise upon the qualities of wool, as well as divers preparations to which it is submitted, in order to draw from that examination consequences fit for guiding industry in the choice of the best modes of management, as well as in that of the most advantageous process of washing and manufacturing.

Until more positive knowledge has been acquired on that point, and particularly on the substance, formation and developement of the fibre of wool, that are to constitute the subject of this first section, we think it is not useless to publish the result of our own observations, although it may seem imperfect.

Of the Fibre of Wool, and of its Nature.

The fibre of wool is a filament of solid substance, a sort of indurated mucus, to which a greasy and soapy matter is united.

The solid part is soluble neither in cold nor in warm water; but this solution may be done by corrosive baths. The greasy substance exists both in the interior and exterior of the fibre. In the interior, it forms the *marrow*, or in other words, the *sap;* at the exterior, it constitutes what is called *greasiness* and *surge.*

The *greasiness* is dissolved in cold water.

The *surge* goes away only in warm water, and this operation requires the mixtures of other substances, and especially of greasness.

It is natural to suppose that the medullary part of the interior of the fibre has a great analogy with the precedent, and it is almost impossible to doubt that it receives from its only envelope, the faculty of resisting the agents which operate the dissolution of the *surge* and *greasiness.*

One can ascribe to that interior substance the impossibility in which we have found ourselves to obtain, even by many successive operations, the complete scouring of wool, an impossibility which is perceived in a new appearance of *greasy* matter, after a certain time. Besides this circumstance causes the softness and the *mlleux* of the stuffs; for if it was possible to free the fibre from all greasy matters, it would lose its suppleness, and would become dry like horn.

Of its Development.

The circumstances connected with the developement of wool are fruitful in useful consequences; we proceed to give a rapid summary of them, taking care only to notice those in regard to which naturalists are agreed, and which appear to us to belong most directly to the object of this work. The fibre of wool takes its birth in the cellular tissue, which is found under the skin. Its beginning is a bulb, sometimes round, sometimes oval, which the circulation fills with a viscous humour that serves as its nourishment. This bulb is composed of two membranes, the one external, the other internal, which envelope, immediately, the root of the fibre. This root advances towards the opening or pore of the skin, which serves as a passage for the fibre, and is then separated from the exterior membrane or bulb. The fibre, having reached the epidermis or exterior skin of the body, lifts it up without piercing it, and makes of it a sheath which unites it strictly to the envelope, which the interior membrane of the bulb had furnished to it.

Some physiologists have pretended that the hair was not a fistulous body, that it did not circulate a sap in its interior, and that it grew by *juxta-position.* That is to say, that every portion of it which forms at its root, pushes before it the portions previously formed. Without involving ourselves in the controversy, we ought to say, that to us it appears much more probable that the hair grows and is nourished like a plant, by means of the circulation of a fluid which fills and dilates it. It becomes, moreover, as Dr. Derham has indicated it, one of the organs of insensible transpiration. The porosity of the tissue of hair, and by consequence of the fibre of wool, gives it then the faculty of *exhaling*, to which we add that of *absorbing.* When we come to treat of the effects of humidity upon wool, we shall have occasion to recollect the importance of this last property. We may give place here to the annunciation of a principle advanced by many naturalists, and which, to our knowledge, has not been contested—it is that the form of the fibre is modified by the configuration of the pore of the skin, which, in that way, serves it as a mould. Thus, say they, the hair will be fine, sleek, undulating (*fin, lisse, ondulé,*) &c. &c. according as the pore may be small and straight, or tortuous and crooked—*(troit, droit ou tortueux.* One may draw from this principle very interesting practical consequences: a long and attentive experience has demonstrated to us how much the nourishment had influence on the quality of the wool, may not a careful study of the causes of this influence conduct us, some day, to unhoped for results? Is it not known to be within the power of man to modify even the conformation of the body of domestic animals? Has not Bakewell diminished by one half, the bony offal in the race of sheep that he has formed? Has he not doubled the weight of flesh, and has he not moulded their forms at his pleasure?* One ought not to renounce the hope of gaining a similar empire over the skin of these precious animals, since the quality of wool depends essentially upon its form, and its form depends, in a great measure, on the condition of the skin, on which the nourishment of the animal acts with incontestible effect—moreover, we have already, in part, exercised this empire by the crossing of different races—whereby we have substituted a thin skin, covered with fine curly wool, in place of a thick skin, which produced only hair coarse and straight (grossier et lisses)—but we return to our subject.

Section 2.

Enumeration and definition of the properties of Wool.

We should deviate from the plan to which we had the intention to confine ourselves, if we sought in the substance of wool, after all the properties that the eyes of a learned man may observe in it. There are some which have none or very little connexion with practice, and which for that cause, we entirely neglect in order to apply ourselves to those the examination of which is indispensable.

We will successively enumerate the properties of the *isolated fibre of wool* (*brin de laine isolé,*) and will then give a definition of each of them, in determining precisely the signification which we shall give in the course of this work, to the divers qualifications of which we will make use; and in adding to that definition some observations to which we shall not have reserved a place elsewhere.

The properties which are to fix our attention, in the isolated fibre, are, 1st, its nature; 2d, its fineness; 3d, its length; 4th, its suppleness; 5th, its strength properly called; 6th, its divers modes of elasticity; 7th, its softness; 8th, and last, the faculties that its tissue possess for *contracting, dilating* itself; *absorbing* and *exhaling.*

The properties which we shall have discovered in the *isolated fibre*, shall be found again in the reunion of the *fibres in mass*; but they shall be combined between them in such a manner that those of the mass shall almost be the product in little of those of each fibre. There is one, however, that we can appreciate only in the union of several fibres: it is that of which we shall speak by and by under the name of *elasticity of volume.*

Of the nature of the fibre.

We will express, by the denomination of *nature*, the divers forms under which appears the fibre of wool; the most remarkable of those forms shall be distinguished by various qualifications. Thus the fibre will be called *frizzled* or *undulated* (frisé ou ondulé) if it presents many sinuosities more or less regular; it shall be *spiral* (vrillé) if those sinuosities develope themselves in a spiral form; it will be *crisped* (crépu,) if without being undulated, it describes one curl only, or a small number of irregular curls; at last it will be *flat, equal* and *glossy* (plat, uni et lisse) if it has neither *curl* nor *undulations.*

Fineness.

The degree of fineness of the fibre is no other than the measure of its diameter. This measure is never perfectly determined in practice, and it will ever be impossible that it should be.—Though the form of the fibre be round, it does not follow that it shall be a perfect cylinder; that is to say, that the measure of its diameter will be *exactly equal through its whole length.* This complete equality so desirable is scarcely ever met with. The fibre is habitually more fine at its root than it is at its extremity, except sometimes in the first wool borne by the lamb at its birth; for in this the extremity of the fibre attenuates or tapers off (s'effile) *to a point.* This disposition of the fibre of the wool to thicken towards its extremity may be explained in the following manner:—The fibre receives whatever supply (*approvisionement quelconque*) of the liquid substance contained in the bulb where it takes its root. It assimilates one part of it for its developement and throws off the superabundant part. In the first wool of the lamb, the extremity of which has never been cut and which terminates in a point, this excretion cannot take place but by means of the pores of the tissue of the fibre, but if the shears has once made an opening to the canal of the tube, this opening will become a means of more easy and more abundant excretion, and the substance will take the habit of carrying itself towards the extremity of the trunk—we can add further that the porous tissue of the fibre having the power of *absorption*, it is natural to believe that this faculty ought to be more efficacious at the exterior extremity of the fibre which is at the surface of the fleece than in the part nearest to the root which is more sheltered, and that for this new reason it ought to be coarser at the former extremity than at the latter. One judges generally of the fineness of the wool but by comparison, and habit only can render this judgment more or less accurate: nevertheless there exists certain instruments especially designed for this measurement, of which we shall hereafter have occasion to speak.

Of the Length of Wool.

The length of the fibre is either apparent or real. The first is that which presents the fibre under its natural character, that is to say, without being extended if it is curled, spiral or frizzled. The second is that which it acquires when it is developed or extended *without being stretched.* In the fibre completely straight and smooth (*lisse et plat*) the *apparent* length differs not from the *real* length.

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* Did he not so modify their nature, as to augment, very much, the proportion of fat to lean, in a given weight of meat.—Ed. Am. Far.

In another place we shall say in what latitude the divers kinds of wool vary in length, and what are, in that respect, the dimensions which appear best adapted for the different kinds of manufacture.

Of the Suppleness (Souplesse.)

The suppleness of the fibre is in other words its flexibility, and it is necessary not to confound it as has often been done with softness, of which it is but one of the conditions. Musschenbroeck understands by flexibility, that property or virtue of which the figure of a solid body may be changed, elongated or contracted, without operating any change of its parts--This definition appears to us to express very well our idea of the suppleness of the fibre of wool, since in giving to wool the designation of supple, we understand at all times that it yields easily to the least force which tends to make it change the direction of its fibre, whether it be in bending or straightening it, and that it admits of being stretched without breaking, beyond the point that we have called its *real length.*

As to the faculty of being contracted, it is of no account, or at least insignificant in practice, and we shall take no account of this part of the property of suppleness.

Of the Strength of Wool, properly speaking.

The strength of the fibre is the measure of resistance that it opposes to the action which tends to break it—It consists properly in the more or less coherence of the parts which compose it.

Of the different modes of Elasticity.

Elasticity is in general the property by means of which natural bodies re-establish themselves in the figure and extent, that some external cause had made them lose. We distinguish in the fibre of the wool many modes of elasticity, for this property manifests itself in different characters in different kinds of wool, and every one of these characters has its peculiar consequence in the manufacture.

We will call 1st, *elasticity of curled* (*élasticité du frisé*) that kind of elasticity by means of which a fibre curled or undulated (*frisé ou ondulé*) retakes its first form and its first length, when the force of extension which kept it in a straight line has ceased to act upon it. All wools are not susceptible of this kind of elasticity, and especially the wool which is straight and smooth or flat, (*lisse et droite,*) which cannot extend more without being *stretched* (*s'étirer,*) since its *real length* is equal to its *apparent length.*

2nd. *Elasticity* of *coming straight again,* (*élasticité de redressement*) the power which enables a fibre of wool to retake its form if one has bent it into one or many directions: the fibre frizzed or curled (*frisé*) and the *straight fibre* (*lisse*) are both more or less susceptible of this sort of elasticity which consists in the power of coming straight again, (*élasticité de redressement*)

3d. Elasticity of retirement, (*élasticité de retirement*) the effort of wool to return to its real or apparent length when it has been stretched beyond its original length.

4th. Finally, elasticity of contraction, (*élasticité de crispation*) the effect which is manifested in the part of the fibre, near to the rupture, if one has broken it in stretching it.

Of the Softness of Wool.

Softness belongs to the touch: The fibre of wool will be more or less *soft* in proportion as its surface is more united, more full, and more exempt from asperities, and as it is more flexible the softness will depend then essentially—1st, on its *form,* and 2dly, on its *suppleness.* We shall shew in the sequel—the utility of this distinction *of the faculties of contracting, of dilating, of absorbing and of exhaling.*

These different faculties define themselves: one cannot refuse to the porous tissue which serves to envelope the fibre of wool, the property of absorbing exterior fluids, and of contracting or dilating itself according to the different atmospheric or other influences to which it may be subjected. These effects are, as we shall see hereafter, fruitful of consequences, important in all that concerns the treatment of wool before and after shearing.

Of the Elasticity of the volume.

We have seen above that there exists a property that we designate elasticity of the volume (*élasticité de volume*) and which could not in practice attach to the isolated fibre, but only in the union of many fibres in a mass: it is time to define it.

We understand by elasticity of the volume the faculty that the wool possesses of being reduced or augmented in its volume, by the effect of compression or of expansion (*traction*) this kind of elasticity is the same that one observes in certain bodies which, altered in the volume, seek to occupy anew the space that they filled before the action.

There is yet a property of wool that we ought not to pass in silence. It is its *colour*: we shall not seek here for the physiological causes to which we are to attribute the shades that shew themselves in the different kinds of hair and wool, and without attempting to reconcile the learned men (*savans*) upon these matters, which will divide them perhaps yet for a long time, we will limit ourselves to observing that it is of wools naturally died of different colours, (black, brown. yellow, reddish and grey,) which resist the effect of washes (bains,) to which we have recourse to wash it and clear it of grease (*dégraissage*) and others which are white: These last present almost all the various shades before they are cleared of grease. But this operation brings it, the white wool in general, to the same colour. The white wool ought naturally to be the most appreciated, because it is susceptible of taking all kinds of colours and of taking them equally—whilst that is not the case with wools coloured by nature.

(*To be continued.*)

(From the New England Farmer.)

COMPARATIVE STATE OF THE SEASON.

Mr. Editor,—I have purposely delayed this accustomed publication, in order that it may be rendered more complete. I have been induced to do it, because persons who keep no minutes have been led into the very erroneous opinion, that this season is late beyond any former example. I have more than once remarked in rendering these annual accounts, that the difference between what is called an early and late season is *practically* very small—that if vegetation is delayed, nature possesses powers to remedy the defects--that the difference between one season and another is every day diminishing as the season advances, and at the close of May there is rarely a difference of more than one or two days, between an early season and a late one. The disastrous season of 1816, which I have often remarked cost more to Massachusetts and Maine, than the whole expenses of the last war, is of course to be excepted. As the present season has been the object of special notice, I shall make my comparison more full and complete, at the risk of being deemed too minute. I repeat, what I have often said, that this is a comparison, not of my trees and plants with those of any *other* person, (for such a test would be of little value,) but of the same trees and plants in the same spot, throughout the whole period.

First cutting of a mess of asparagus, from the same bed, now 40 years old.

In 1815, May 6.	In 1823, May 5.
‘ 16, ‘ 5.	‘ 24, April 28.
‘ 17, ‘ 5.	‘ 25, ‘ 20.
‘ 20, ‘ 1.	‘ 28, ‘ 26.
‘ 21, ‘ 9.	‘ 29, May 1.
‘ 22, ‘ 1.	

So that the asparagus plant was rather more forward in this *abused* season than in the average of eleven years. It is difficult to get rid of this natural proof, far stronger than the most retentive memories.

First opening of the blossom of the apricot.

In 1815, May 1.	In 1820, April 20.
‘ 16, April 29.	‘ 22, ‘ 21.
‘ 17, May 2.	‘ 23, ‘ 20.
‘ 18 ‘ 9.	‘ 28, ‘ 20.
‘ 19 ‘ 3.	‘ 29, May 3.

The apricot was therefore more late than usual this year in opening its flower, but not remarkably so.

First opening of the blossoms of the cherry.

In 1813, May 10.	In 1823, May 7.
‘ 15, ‘ 10.	‘ 24, ‘ 1.
‘ 16, ‘ 6.	‘ 25, April 26.
‘ 17, ‘ 6.	‘ 26, May 4.
‘ 18, ‘ 17.	‘ 27, April 21.
‘ 22, ‘ 1.	‘ 29, May 9.

It will be seen that cherries were not this year more backward than usual.

First opening of the pear blossoms.

In 1813, May 20.	In 1822, May 5.
‘ 16, ‘ 12.	‘ 24, ‘ 4.
‘ 17, ‘ 7.	‘ 25, April 30.
‘ 18, ‘ 24.	‘ 26, May 5.
‘ 19, ‘ 17.	‘ 28, ‘ 4.
‘ 20, ‘ 13.	‘ 29, ‘ 14.

First opening of the apple blossoms.

In 1813, May 23.	In 1822, May 9.
‘ 16, ‘ 16.	‘ 23, ‘ 19.
‘ 17, ‘ 12.	‘ 24, ‘ 11.
‘ 18, ‘ 25.	‘ 25, ‘ 8.
‘ 19, ‘ 20.	‘ 26, ‘ 11.
‘ 20, ‘ 11.	‘ 29, ‘ 15.
‘ 21, ‘ 17.	

It will be thus seen that the lateness of the spring had very little effect upon the apple tree, and that the present season as to that tree must be classed among the early ones.

General Remarks.—The peach tree has suffered extremely from Massachusetts to New Jersey. In the latter state an intelligent cultivator has lost a crop for which he was offered $4000. It has been as fatal to the vine, where it was left exposed. The promise of the pear tree is smaller than usual, and in some estates it has failed almost wholly.—The promise of the apple is not great, though it is too early to decide with confidence. Grass has set well, and the prospect of a very abundant crop, must be taken as an offset to the deficiency of fruit. The promise of cherries is a fair one. J. Lowell.

Roxbury, May 17 1829.

HEMP MACHINE.

Hines and Bain machine "is so constructed as to operate 112 tims on every inch of the stem; and when running at ll speed, rising of 200,000 flutes operate on hemp, r flax per minute, in sufficient force to crack an dislodge the stem, and at the same time, preser the coat or fibre unimpaired. When well tended will break 300 pounds of hemp or flax in an hour. This machine has been tried in New York, Vernt, Ohio, &c., and according to the certificates blished in the newspapers, is every where approv. The hemp or flax is broken by the machine, an if unrotted, the fibre is then immersed in water a w days, dried, and again run through the machine hich makes it fit for use.

The Hon. Samuel throp, of West Springfield, in a communication he N. E. Farmer, says, the hemp raised in his ne borhood, when *well dressed,* commands in market e highest price of the best Russian hemp—from 0 to $12.50 per hundred. He lets out his land on shares, and in one instance, received more n 45 dollars an acre clear profit. The price of r agricultural products is so low, that he thinks it deserves the consideration of farmers in different parts of the country, whether their interest does not require them to turn a part of their land, and to apply a portion of their labor, to the cultivation of hemp. The hemp in West Springfield has hitherto been water rotted, and dressed by the brake and swingling board.—*Hamp. Gaz.*

HORSE MILL.

Washington, December 8, 1828.

Sir,—I had an opportunity, a few days ago, to make trial of your mill, driven by my heavy horse power, with five horses.

It was the opinion of the gentlemen who were with me, as also my own, that, with a horse power properly suited to the mill, the work could be done by three, certainly by four horses, with as little labour to each, as it cost mine to move my power.

The mill ground at the rate of nine bushels to the hour, and I now believe, with such speed as it is capable of bearing, it may be made to grind ten bushels per hour. About one third of the grist can be passed through a seive sufficiently fine to produce meal, and the residue is good horse feed. It realizes my most sanguine expectations.

You may use this letter publickly, if you think it will aid you. Yours, &c.

Mr. W. W. Forwood. E. F. CHAMBERS.

ENRICHING PROPERTIES OF WATER.

Water, even in the purest state in which it can be found, is an enricher. Spring water universally produces the earliest bite, and calcareous springs the best grass. Water, in which flax has been steeped, and which the farmer is often puzzled to get rid of without polluting the streams in his neighbourhood, forms a superior substance for irrigating; but, in short, the more abundantly water is impregnated, either from running through a tract of rich soil, or from receiving the refuse of towns and manufactories, or even from being exposed to mixture with putrid substances, (and so becoming putrid itself) in ponds or in reservoirs, so much the more are its effects beneficial; and it has been frequently remarked, that no water is so enriching as that which is given in summer floods.

HORTICULTURE.

GRAPE VINE AND SUGAR CANE.

Greene Co. Alabama, May 14th, 1829.

Mr. Skinner:

I am now trying experiments with the sugar cane, vine, and hemp, and some of my neighbours are entering on the cultivation of silk on as large a scale as their means and facilities will admit. With regard to the vine all our efforts were fruitless so long as we confined our attention to the cultivation of the foreign—particularly the French varieties. Being myself a resident in the French Grant, one of the leading provisions in the transfer of which to the French Emigrants, was the cultivation of the vine; I have had many oppotunities of seeing experiments fairly tried with agreat many varieties, and under the care of profesed Vignerons, but never in one instance have they been repaid for their labour and expense. Being generally entirely unacquainted with any other kind of cultivation except that of the vine, and finding themselves so entirely baffled in their best directed efforts to insure its success, many of them abandoned their golden dreams and the country together. Hence it is that neither the views of congress, nor the expectations of individuals have as yet been at all realized. With such discouraging prospets, few others were induced to embark in the cultiation of Bordeaux vines, but it happened that while the experiments were going on, a gentleman in New Orleans, who was agent for the Swiss association at Vevay, and an acquaintance of the unfortunate General Lefebvre Desuervettes, sent him a few cuttings of vine, without any description of the kind or history of the manner in which he became possessed of them, which upon trial have revived our desponding hopes. They are evidently I think natives, having an entirely different aspect from any of the imported vines, and agreeing entirely with the other native vines I have, in their long joints, red appearance of the bark, exuberance of growth, and pulpiness of fruit. The Vigneron who lived with him at the time, and who fell heir to most of the products of his little farm on his leaving this country in the unfortunate ship Albion, found that they very far exceeded all other kinds of vine in his vineyard, and as a finesse to make them sell, called them the Madeira grape, but he knows nothing of their history. He now cultivates them however, to the exclusion of every other kind, having even dug up all his imported varieties, and is succeding in making a handsome vineyard of five or six acres of them. They are not more rapid or luxuriant in their growth than another variety I have—the Schuylkill muscadel—but the fruit is more esculent, and has not so much of the wild muscadine character. Some wine of a very good quality has been made from them, and this year I have flattering prospects of making wine from each of these varieties. This spring my French Vigneron has dug up all my Bordeaux vines, heaping upon them all the maledictions which were bestowed on the unprofitable fig-tree, and telling them that they have behaved themselves so badly in this country, that he could no longer claim any friendship with them.

In confirmation of my idea that if we ever succeed in cultivating the vine profitably in the United States, it will be with the native varieties, I have found in my travels during the last year, which extended through sixteen of the states, that the same idea is almost universally entertained, by all who have been engaged in that kind of cultivation. At New Orleans, I saw a very fine muscadel vine in the garden of a horticulturist in the upper Fauxbourg; but was grafted, as he told me, on a native, while one which stood immediately contiguous, but which had not been grafted was unthrifty and insignificant in its appearance and bore comparatively no fruit at all. They were both planted at the same time, and were then sixteen years old, so that the experiment in that instance was completely decisive, that unless grafted on native stocks they will not succeed.

The experiments of the Swiss colony which settled in the United States some twenty years since, with the view of cultivating the vine, led to the same results. As you are already no doubt aware their first location was in Jessamine county, Kentucky, where by throwing in their own funds and by subscriptions of some American gentlemen in the vicinity, who were anxious to embark in the enterprise, they raised a common stock of about $10,000, the whole of which they expended without even succeeding in making a vineyard, much less any wine. A few of the most enterprising still persisting in the idea, that wine could be profitably made from some kind of vine or other, as the woods were well supplied with native ones, removed to Vevay in Indiana, where I spent a day in my travels last summer, and found them living comfortably and happily from the products of small vineyards composed entirely of our native vines—principally the Schuylkill muscadel.—They there generally call it the Cape grape, but say they obtained it from the Schuylkill river, near Philadelphia, and there is no question in my mind of its being the very one described by Mr. Landreth and others, as the Alexander's or Schuylkill muscadel. Besides they agree that no imported vine, so far as their own experience extends, has ever withstood the mildew or carbon, which in a few years invariably destroys them or prevents their bearing fruit, and this, like all the other natives, has never been materially affected by it; while at Vevay, I do not recollect to have seen a single European grape vine, except one very diminutive one in Mr. Dufours' garden, and he told me they had long since been compelled to abandon their cultivation.

The only vineyard in the United States which I have seen composed entirely of imported vines is Mr. Loubat's, on Long Island, near New York. The vines were small and unhealthy, in comparison with the native varieties, some of them having a little precocious fruit the first year, which with mine, has generally been the harbinger of disease and barrenness afterwards. So far from becoming acclimated, mine have deteriorated every year. I have never obtained one peck of grapes from them, though I had twenty-two different kinds planted on my farm at one time. Nor have I ever eaten any grapes at but one Frenchman's in the whole settlement, and his vines never bore, except that season, and have subsequently died.

The Messrs. Landreth's, of Philadelphia, deservedly considered as amongst our most distinguished horticulturists, entertain the same views of all imported vines when planted in the country, and he told me last summer, when in that city, that he had not a single variety he could recommend. The same facts obtain, so far as my observation and information extend, throughout the southern states. In North Carolina, a good deal of wine is made from the Roanoke or Scuppernong grape, some of which I here found to be very pleasant; and Mr. Herbermont, near Columbia, in South Carolina, and Mr. Spalding, in Georgia, I believe, are succeeding entirely with the native grapes. But I must beg your pardon. Instead of confining my observations to the cultivation of the vine in Alabama, I have taken you round the United States. In such a discursive range I have probably travelled over much ground, with which you are much better acquainted than myself, having never devoted any attention to agricultural pursuits of any kind, till within the last few years. My object is merely to elicit information from others on this very important and interesting subject, being myself determined to persevere till I succeed in making good wine, and in making it profitably. If you possess any information of a profitable and thrifty vineyard from vines *known* to have been imported, I should be thankful for some information through the medium of your paper or otherwise, for as yet I have heard of none; and having experienced much vexatious disappointment myself, besides having incurred very considerable expense in their cultivation, I think it is time that their reputation should be established, or the American people no longer deluded with the hope of succeeding in making wine from foreign grapes.

I intended to have said something to you concerning our progress in the cultivation of the sugar cane, but my letter has already extended itself to so unexpected a length, that I have neither time nor room to add much. I planted about two acres last year, and it succeeded beyond my most sanguine expectations. One stalk, which I exhibited to the Agricultural Society of Greensborough, in this vicinity, weighed five pounds, having nineteen good joints, and good eyes at every one, after having been exposed in open mattrass to the whole of our unusually severe winter. My rattoons have also withstood the cold wonderfully, considering the thermometer has been as low as 13° above zero after sunrise, and they are now growing off finely. I have no question but that it can be raised one or two degrees further north here, than at Ultima Thule, on the Mississippi, the great range of Cumberland mountains to our north and northwest, acting as a barrier against the cold winds from the lakes, &c. by diverting them down the great valley of the Mississippi, while our climate is softened by our greater contiguity to the Gulf stream, which is supposed to be the cause of the more general prevalence of southerly winds here. I have twelve acres planted this year, and expect the next to start the first sugar mill that was ever seen as high as 32° 42′. Should it succeed any thing like equal to what it promises, it will be the commencement of a new era in the agriculture of this state, and be the means of rescuing the planters from the ruin which the declining condition of our staple, has, for some time, threatened us. That it will, is the confident expectation of

Yours, very respectfully,
ROBERT W. WITHERS.

THE WHITE MULBERRY TREE.

While much is doing in some of the eastern counties in this state for rearing the silk tree, little or nothing is attempted in the county of Hartford. No soil in the state is better for producing this tree than the land in and about Hartford. The old worn out fields in many of our towns which now lie waste, or are ploughed and sowed with rye once in three or four years, and produce six or seven bushels to the acre, would, if set out with this valuable tree, nett to the owner, in ten or fifteen years, twenty to thirty dollars per acre, allowing the price of silk to continue the same. It is estimated by a gentleman in the county of Windham, that an acre of land that has a full grown mulberry orchard on it, yields to the proprietor rising of eighty dollars annually, taking favourable and unfavourable seasons together.

This tree is easily raised.—Sow your seed in a rich soil, well prepared in drills, three feet apart, rather thicker than you would sow beet seed, keep them clear of weeds. loosen the soil around them the next spring, and when two years old they are fit to transplant.

They grow soon.—Put a few shovels full of rotten manure mixed with earth into the hole of each tree when set out, if the soil is poor—put a little chip manure or scraping of the barn yard around the trees in the fall for three or four years, and keep the ground mellow around the trees.

They will make fence.—If you sow the seed thick and let them grow without pruning they become a thick hedge, and if taken care of and cattle kept from them, will, in five or six years, make a fence that will turn sheep or small cattle.

The tree enriches the land.—Before it is full grown it begins to bear the mulberry. which contains a quantity of saccharine matter. These berries, when the tree produces them in large quantities, will almost of themselves, reclaim old worn out fields. The land under the trees would be distinguished by a green sward, while the other parts of the field would be covered with worm-wood, life-everlasting, and penny-royal.

USE OF CHARCOAL.

(From the Transactions of the London Hort. Society.)

On the use of Charcoal Dust as a top-dressing for onions, and as a cure for the clubbing in cabbages, &c. Communicated in a letter to the Secretary—by Mr. Thomas Smith, gardener to Matthew Bell, Esq., F. H. S. at Woolsington, Northumberland.

Sir,—Having seen some papers in the transactions of the Horticultural Society upon the cultivation of onions, but none that took any notice of a disease to which these roots are very subject, I venture to lay the following experiments and their results before the society.

The garden I superintend, is a very wet, stiff soil, upon a strong clay, and without any declivity. For several years my crops of onions were nearly all destroyed by a grub, and by mouldiness coming on about their roots at various stages of their growth; sometimes when they were about the size of what we call scallions, at other times when they were beginning to form a bulb, and even when the bulb was formed. As soon as the disease takes place it may very readily be perceived by the onion blade assuming a glaucous green colour, but very soon after changing to yellow, and the leaves at the same time rather flag. I tried various quarters in the garden, and found that there was a difference in them, some of them producing more of the disease than others. I also tried several experiments to prevent the disease taking place: but none had the desired effect, until I made use of charcoal dust spread upon the top of the ground intended for onions, about half an inch thick, before the seed is sown (the ground being previously well dug and manured,) and merely scuffled in with the point of a spade, so as to mix the top soil and charcoal dust together. Nothing more is after required beyond managing the crop in the usual way.

For these last six years I have had most excellent crops of onions, and not the least appearance of any infection. My first experiment I made on a bed, fifty feet long and five feet wide, prepared in the usual way, one half the bed was dressed with charcoal dust, and the other half without it; the part on which the dust was laid had an excellent crop of onions, it remained quite clean and free from any disease, while the part to which the dust was not applied was entirely destroyed by the grub and by mouldiness.

I subsequently resolved to try the effects of the dust on a larger scale; I therefore had the whole of the quarter prepared for onions, and divided it into eight beds of the same size as before; four of the beds were treated with dust, the other four remained without it. The result was the same as before, the beds where the dust was applied bore a good clean crop, whilst the others were affected. Having had two years proof of the good effects of charcoal dust in preventing the disease from taking place upon the onion in one quarter, I have since tried it upon different quarters, with the best success.

The charcoal dust ought to be kept quite dry, which is easily done by placing it in a round heap, and covering it closely over with turf till it is wanted.

I have also found that the application of charcoal dust effectually prevents the clubbing in the roots of cabbages, &c. I had been accustomed to use lime fresh from the kiln for that purpose, and always with considerable advantage; but since I have made use of the charcoal dust upon different quarters of the garden, and any of the Brassica kind was subsequently planted there, the clubbing has entirely disappeared. I planted, some time back, a quarter with cauliflower plants, which never arrived at maturity, being very much injured with the club. In the spring of the following year I had the same quarter prepared for onions, with charcoal dust upon it; as soon as the onions were cleared off in October, I had it well dug over, and planted it immediately with early cabbages, which all arrived at maturity the ensuing spring, without the least appearance of clubbing.

Remarks by the Editor of the New England Farmer.—Charcoal is not only useful as an antidote against insects, but is a valuable manure. Dr. Deane stated that he had long observed where coal kilns have been burnt, the ground has discovered a remarkable fertility for many years after; and more especially when it has been a cold and wet soil.—The dust of the coals and that of the burnt turf have conspired to produce this effect. Hence I have concluded the small coals, or the dust from coal kilns, spread over sour meadow lands would answer the end of a good manure. Being extremely porous, the pieces of coal imbibe much of the superfluous water, as well as increase the heat on the surface, as all black substances do. And when the weather becomes dry, they discharge the moisture, partly into the soil, when it grows dry enough to attract it, and partly into the air by the action of the sun upon it.

It is stated in the last Philadelphia edition of Willich's Domestic Encyclopedia, vol. i. page 655, that "a friend of Dr. Mease informed him, that some years since, nearly all the cucumber and melon vines in New Jersey were destroyed by a fly or bug. One day he had occasion to ride by a miserable hut in the woods, and perceiving a very flourishing patch of cucumbers, he was induced to dismount and examine it. On approaching the spot he found it had formerly been a *charcoal* heap. He took the hint, and by strewing powdered charcoal round about the vines, when they first come up, preserves his cucumbers effectually."

INTERNAL IMPROVEMENT.

NEW YORK CANAL FINANCE.

The Troy Centinel gives the following view of Mr. George Tibbits's letter on the subject of the management and application of the surplus revenue of the Canal Fund.

The Canal debt, according to the report of the Comptroller, made on the 18th of March, 1828, was then $7,373,155 99; of which $3,493,500 is redeemable on the 1st day of July, 1837; and $3,879,655 99, on the 1st July, 1845.

Grounding himself on the official reports of the receipts and expenditures of the Canal Fund, during the two last years, Mr. Tibbits takes the *net surplus* revenue of the Fund, at $600,000 *per annum.* This surplus cannot be applied, from year to year, to buying up the Canal stock, without a needless sacrifice; because that stock is above par, and every effort on the part of the State to buy it up before it falls due, would only raise its market price. The surplus revenue must, therefore, lie idle in the treasury, or be invested in some other way; and accordingly, the Commissioners of the Canal Fund, pursuant to an act of April 18th, 1826, passed for the purpose, invested $100,000 of this surplus in United States stock. This was soon after paid up, however, and the money returned to the Fund.

By a report of the Deputy Comptroller, made during the last winter, it appears that of actual surplus there is now vested—

In stock of the Hudson and Delaware Canal Company,	$219,353 25
In the Neversink Navigation Co.	10,100 00
Advanced to the Cayuga and Seneca Canal Fund,	63,957 86
Loaned to the Corporation of Albany,	150,100 00
Deposited in Banks in New York,	327,384 84
Total surplus now on hand,	$770,895 95

If the surplus now accumulated, with the annual addition of $600,000, should remain idle in the treasury, it would, on the 1st July, 1837, amount to $5,570,895 95, which would be $2,077,395 95 more than the portion of the debt then redeemable.

But if this accumulating surplus could be invested in United States stock, drawing an annual interest of 4 per centum, and that interest reinvested, as it accrues, the amount on the 1st July, 1837, would be $6,583,559: if it could be invested at 6 per cent., it would, in the same time, amount to $7,167,171, which would be $3,673,671 more than the portion of Canal debt then redeemable—or within $205,989 of the whole debt. In any event, therefore, there will be, on the 1st July, 1837, a fund accumulated more than enough to pay off the portion of the Canal debt then redeemable; and from that time forward there will be, of course, a very great surplus fund rapidly accumulating, and capable of being administered so as to act in the most wholesome and efficient manner on the prosperity of the state.

The question is, therefore, how shall this great and accumulating fund be managed? To this Mr. Tibbits replies, by recommending that the disposable surplus be invested in joint-stock companies, incorporated for the construction of *Canals, Rail roads, and such other works of internal improvement as shall yield an income.* For this purpose, whenever the private individuals, or corporate bodies, upon whose application the charter is granted, shall have subscribed for at least one third of the capital stock, paid in ten per cent., and given security for the payment of the remainder satisfactory to the Canal Board, let the Comptroller, under the direction of said Board, be authorised to subscribe for the remainder of such capital stock, on account of the Canal Fund, and to pay for the same in such instalments as are required from all the stockholders. This stock is to remain pledged to the Canal Fund, for the payment of the Canal debt. As a further security, Mr. Tibbits proposes that in every case a *majority* of the stock shall be taken on account of the Canal Fund, in order that the state may possess a controlling vote in the choice of directors and the general management of the concerns of the Company. Of the Board of Directors of each company, the Canal Commissioners should be members.

The Canal Board, or Comptroller, should be authorised to exchange this stock, from time to time, if opportunity should offer, for State Canal stock, when it could be done at *par;* which Mr. T. entertains no doubt could be done, to the full amount of the Canal debt, before that debt should become payable.

Preparatory to entering upon this system, Mr. Tibbits would have the Legislature declare, by joint resolution, or otherwise, that it is expedient to incorporate companies to construct Canals, or Rail-roads, with authority to collect tolls thereon; such tolls to be abated at the discretion of the Canal Board, in case they produce more than 12 per cent. *net* revenue, and to be increased, in case the net revenue should not equal 6 per cent. on the capital invested. The object of this declaration would be to make a public annunciation of the system, so as to put an end to all applications to the Legislature for Canals and Rail-roads at the public cost, and remove all hazard of creating a state debt to an unknown amount, and of indefinite duration.

In this way, wherever individual sagacity and the course of business should point out the importance of a public work, the state would be ready and able to give all the aid which would be consistent with a liberal but sound and prudent policy.

Mr. T. contends that the system proposed would be fully warranted by the Constitution, and perfectly consistent with the public faith.—It is, in fact, nothing more, in point of principle, than has been already done by the Legislature, in directing an investment of more than $219,000, in the stock of the Hudson and Delaware Canal Company on account of the Canal Fund.

After dwelling a little on the evils that would result from the state's embarking, on its own account, and by the use of its own credit, in works of internal improvement, Mr. T. proceeds to show how the proposed system would operate on the Canal Fund, and to what extent it would aid the construction of public works.

It will be recollected that the surplus already accumulated is $770,895 95, which, with the *annual* addition of $600,000, will, if no interest be drawn, amount on the 1st of July, 1837, to $5,570,895 95; or to $2,077,395 95 more than the portion of Canal debt then redeemable. But if these moneys should be invested as proposed, and the income should be only 4 per cent. per annum, they would amount on the 1st of July, 1837, to $6,583,559; that is, to $3,090,059 more than the portion of Canal debt then redeemable. Now, if the amount of the Canal debt, payable in 1837, which will be $3,493,500, be taken from the sum produced at 4 per cent. it will leave a clear surplus on hand, of $3,090,059. From the 1st July, 1837, onward, the annual surplus will increase by the amount of the annual interest previously paid on the portion of debt then redeemed. That sum would be $174,675, which added to $600,000, would give, after July 1st, 1837, an annual surplus of $774,675. This invested as proposed, so as to draw an annual interest of 4 per cent. would produce, on the 6th July, 1845, the time when the remainder of the canal debt would be payable, the amount of $11,302,324 32. From this deduct the remainder of the canal debt, say $3,879,655 99, and there would be left, after paying the whole canal debt, a clear surplus fund of $7,422,668 33.

Such would be the productiveness of the system proposed by Mr. T. in augmenting the Sinking Fund for the extinguishment of the Canal debt. But the results of the system would be very interesting and important in its other aspect, to wit, the aid it would furnish to the progress of internal improvement. The sums which would have been applied to the construction of public works, would be the whole amount of the Canal debt, to wit, $7,373,155 99, and the amount accumulated beyond that debt, to wit, $7,422,668 33—making, together, $14,795,824-32. Add to this the amount, which, on the plan proposed, would be supplied by private individuals, say *one third* of the whole, $4,931,941 44, and the whole amount that would have been expended in the construction of public works in the state, on or before the 1st July, 1845, would be $19,627,765 76—or, nearly twenty millions of dollars, over and above the cost of the canals now made!

The Erie and Champlain Canals were about eight years in making. If the proposed system should be adopted, it could not go into operation sooner than next year, 1830; so that the calculated results embrace a period of only 15 years, not quite twice the time occupied in producing the Erie and Champlain Canals, for expending considerably more than twice their cost, in similar enterprises. We cannot believe that the wants of the commonwealth will require a more rapid disbursement of money in the construction of Canals and Rail-roads.

CHESAPEAKE AND OHIO CANAL.

We have just received some interesting particulars respecting this great work: for truly great it is, in the end which it proposes, the means which are provided for its attainment, and the plan of the Canal itself.

Forty-six miles, distributed into ninety-two sections, have been placed under contract. Upon this line, about eighteen hundred labourers, masons, and stone cutters, are employed. The wages of the first vary from $10 to $13 per month, the last earn from $2 to $2 50 per day. Not a death, except one, and that by accident and carelessness, has occurred upon the Canal since the work was begun, which was in August last. Four thousand additional hands might now find employment on it, provision having been made for the expenditure of one hundred thousand dollars per month in its construction.

At the Great Falls of the Potomac, and especially on the 12th section of the Canal, let to Mr. George Ketchum, of New York, a most interesting spectacle is daily presented.

The hill, along the face of which the Canal extends, is blasted by kegs of powder used at a blast, separating immense masses. The stone is lifted from the quarry by a crane worked by horses—it is run along to where it is needed, upon wooden rails, and laid in a perpendicular wall of fifty feet elevation by the same power, guided, indeed, by human ingenuity, which is no where in this case as conspicuously displayed as here.—*Nat. Intel.*

BALTIMORE AND OHIO RAIL ROAD.

[The following report was laid before the Board of Directors of the Baltimore and Ohio Rail Road Company, on Monday last:]

Baltimore, May 25, 1829.

To the President and Directors of the
Baltimore and Ohio Rail-Road Company.

Gentlemen,—The undersigned Engineers deputed by you in October last, to visit Europe, in order to examine the Rail-roads of Great Britain, both with respect to their construction and the application of the various kinds of motive power employed on them, have now the honour to report in part—That they diligently prosecuted the object of their mission until, as they conceive, they had acquired the information desired by the Company, and that they have accordingly returned to Baltimore to resume their duties in relation to the location and construction of the Baltimore and Ohio Rail-road.

They have examined numerous rail-ways in England, Scotland and Wales, embracing those of an inferior construction, as well as of the most improved order; but the nature of their duties while abroad was such as to render it impracticable for them to prepare such an arrangement of the facts with which they became acquainted, as would enable them at this time to present a satisfactory detailed statement of the results.—Whilst, however. they are not at present, prepared to make a full report, such as the materials in their possession will enable them to offer at a future day, and must, therefore, ask the indulgence of the Board, until their attention can be given to this object, they will have it in their power at once to employ in the service of the Company whatever knowledge they may possess in furtherance of the extensive operations now in progress.—In the mean time, it may be satisfactory to state, that a careful investigation of the subject committed to them, under circumstances so favourable to correct conclusions, has resulted in their entire conviction of the general efficacy of Rail-roads as a speedy, certain and economical means of conveyance, and that the completion of the work in which this Company has embarked, *in the manner and on the principles which have so far governed in its location and construction*, will in their opinion fulfil the most sanguine expectations of the Company, and of the public. With great respect,

We have the honour to be, &c.
Signed, J. Knight,
Wm. G. McNeil,
G. W. Whistler, Ast.

(From Poulson's American Daily Advertiser.)

UNION CANAL.

During the late session of the Legislature of Pennsylvania, an act was passed authorising the Union Canal Company to connect their works, by means of a navigable Canal, with the great reservoir which they have been for some time constructing northwest of the Blue Ridge, so as to give an outlet to the extensive coal region, situate on the head waters of the Swatara river. To the provisions of this act the assent of the stockholders was required, and we understand that the same was given by them unanimously at a meeting called for the special purpose of considering the subject on the 14th inst.

It is ascertained that two sections of canal, of about four miles each, one above, and the other below the great reservoir, will accomplish the object, and at the same time place within reach of an Atlantic market, a portion of the state abounding in coal, hitherto considered of little or no value, from its remote situation, and insure to the Union Canal Company the profits of an extensive trade from a new and inexhaustible source.

The prospects of trade upon the main line of the Union Canal, are, from the present spring's business, highly encouraging. The number of boats that *crossed the summit* during the week, ending on the 23d instant, was 102, being an average of a fraction less than fifteen per day.

LADIES' DEPARTMENT.

(From the Natchez Ariel.)

TO KATY-DID.

A large green fly, that hold its nocturnal serenades on one of the shade trees of our house, to the no small annoyance of the inmates.

Who art thou, shrill and noisy insect, say?
Thou who among the thickest foliage hid,
In sullen silence, sits the live-long day,
And toil'st all night, to tell, what "Katy did?"
Art thou a spirit from another state,
Who by the accusing angel hither bid;
Com'st to do penance to thy injur'd Kate,
By owning right the all that "Katy did?"
Or did thy Kate, serpent like, beguile,
Thy honest bosom by her potent spell;
And revel on thy feeling for a while,
Then bid thy heart in lonely anguish swell?
If Kate, in aught, has been unkind to thee,
Then bless thy stars that thou of her art rid,
But cease that cry of wild monotony,
That "Katy did it" "Katy" "Katy did."
Whoe'er thou art, whate'er thy errand be,
Oh let no longer Katy's act be hid;
If thou would'st have our care or sympathy,
Tell, tell, oh tell what 'tis that "Katy did."
But if in thee no spirit be enshrin'd,
And thou art taught by nature in her play;
Far in the wild woods gloomiest shades thou'lt find
More willing list'ners to thy rough edg'd lay.

OREO.

LOVE OF FLOWERS.

The love of flowers seems a naturally implanted passion, without any alloy or debasing object as a motive: the cottage has its pink, its rose, its polyanthus; the villa its geranium, its dahlia, and its clematis; we cherish them in youth, we admire them in declining days; but perhaps, it is the early flowers of spring that always bring with them the greatest degree of pleasure, and our affections seem immediately to expand at the sight of the first opening blossom under the sunny wall or sheltered bank, however humble its race may be. In the long and sombre months of winter our love of nature, like the buds of vegetation, seem close and torpid; but, like them, it unfolds and reanimates with the opening year, and we welcome our long-lost associates with a cordiality that no other season can excite, as friends in a foreign clime. The violet of autumn is greeted with none of the love with which we hail the violet of spring; it is unseasonable; perhaps it brings with it rather a thought of melancholy than of joy; we view it with curiosity, not affection; and thus the late is not like the early rose. It is not intrinsic beauty or splendour that so charms us; for the fair maids of spring cannot compete with the grander matrons of the advanced year; they would be unheeded, perhaps lost, in the rosy bowers of summer and of autumn: no, it is our first meeting with a long-lost friend, the reviving glow of a natural affection, that so warms us at this season: to maturity, they give pleasure, as a harbinger of the renewal of life, a signal of awakening nature, or of a higher promise; to youth, they are expanded, being opening years, hilarity, and joy.

[*Journal of a Naturalist.*

Education and instruction are the means, the one by use, the other by precept, to make our natural faculty of reason both the better and the sooner to judge rightly between truth and error, good and evil.

SPORTING OLIO.

Canton (Baltimore) Races.

Second day.—The race on Thursday is said to have been one of singular beauty, and to have afforded the spectators fine sport. The *knowing ones* as well as the *dolts* were alike disappointed in the result. Before starting *Fauquier*, the Washington horse, was so decidedly the favourite that bets of 100 to 300 were offered in his favour, with but few *takers*, and iterated again when the horses were brought up to the starting chair, with similar success. By one of those accidents that sometimes occur, the riders did not wait for the word start, but dashed off without leave; and *Jumping Jemmy* got so much the control of his bit as to carry his rider beyond the south turn before he could take him in. The jockies of the other horses were more fortunate, and held on to their bridles. The horses being again brought up to the Judge's chair, on receiving the word "go" dashed off in handsome style, Jumping Jemmy taking the lead, hardly pressed by Fauquier, who evidently gave him quite as much to do as he could attend to.

Jumping Jemmy maintained the post of honour during the whole of the first round, and part of the second, without any serious attempt being made by his chief competitor to pass him; but as they were nearing the hill on the back of the course, the gallant Fauquier commenced a series of well conceived efforts to push by him—at times he nearly locked Jumping Jemmy, but as invariably failed of his object, bets were freely still offered on Fauquier, until the hill had been ascended, and it was found that Jumping Jemmy maintained his station, and manifested no symptoms of distress. Until this period, the wise doctors of horse flesh had set him down in their calendars, a mile horse—they erred—he shewed both bottom and speed, and won the heat by nearly a length—Time 3 min. 54 sec. Florivell distanced.

At starting for the second heat, bets were still in favour of Fauquier,—as Fauquier's bottom was known to be good, it was determined to put him up to his speed from the start—every foot of this heat was *run* for, but Jumping Jemmy proved himself a steed of worth, and beat his antagonist half a length; both horses were nearly locked for a quarter part of the time, and seemed to struggle with as much anxiety as their riders for the mastery. To say that those who visited the turf on that day were gratified, would but faintly convey an idea of the pleasure experienced—they were delighted, and returned to their business in good humour with themselves and every one else.

Third day.—The race on Friday was closely contested and won in two heats by Batchelor. This race, as well as the one of the day before, deceived those who pride themselves on being connossieurs. Washington was decidedly the favourite, and bets were offered on him, of from 50 to 30, and from 100 to 40.

The first heat was run in 6 min. 2 sec., won by Batchelor, by about two lengths—Washington 2d, Mohican 3d.

The second heat was also won by Batchelor, by about a length, Mohican 2d, and Washington nearly distanced. Time 6 min. 3 sec.—*Chronicle.*

"I want a Young Man's Companion," says a gentleman to a bookseller:—"Then here's my daughter," replies the other.

MISCELLANEOUS.

(From the Free Trade Advocate, April 11.)

THE TWO PENKNIVES.

"Tell me which weighs the most, that penknife, or those three silver half dollars," said a gentleman to us the other day. I took them in my hands and pronounced them to be of equal weight. "That penknife," said my friend, "was made in Pittsburg. It cost me one dollar and a half, and is the product of *American industry,* which you see has given to a little piece of iron, and a small piece of a buck's horn, a value equal to its own weight in silver." All the company present were struck with this apparently irresistible argument in favour of the "American system." That iron ore and horn should be made as valuable as silver by *domestic industry,* appeared to be almost incredible, and yet the veracity of the owner of the penknife admitted no doubt on the subject.—Could there be any question as to the benefit which the nation would derive from making its own penknives? seemed to be asked by several of the listeners.

To meet this cogent *fact,* which to my friend was so conclusive as to the soundness of the restrictive policy, that he proposed to burn the books on political economy, Adam Smith and all. I also resorted to a *fact.* I took out of my pocket an English penknife, of the same weight as the American one, which had also cost a dollar and a half; and having the two before me, expressed myself somewhat in the following language:

"In the Pittsburg knife, I see the representative of a certain portion of American industry. I see the product of the labor of the hunter, the miner, the coal heaver, the smelter, the wagoner, the iron master, the steel maker, and the cutler. I see that the knife is the result of the combined labour of these and perhaps many others, and I also see, that the knife has cost what is precisely equal to the wages of a man for three days, estimating this at fifty cents per day. In other words: I see, that in order that the nation should possess that penknife, one man must labour for three days.

"Now in the English knife, I also see a portion of American industry. I see it in the product of the labour of the ploughman, the sower, the reaper, the thrasher, the miller, the wood cutter, the cooper, the wagoner, the factor, the merchant, the ship builder, the rigger, the sail maker, the ship smith, the ship joiner, the plumber, the drayman, the stevadore, the mariner, and a dozen others who are employed in producing wheat, converting it into flour, and in transporting it abroad. All this is American industry, and *is only another mode of making a penknife.* It has, however, the advantage over the first mode. If it were not for the protecting duty, the English knife would cost but one dollar, or in other words, the nation could procure it by the labour of one man for *two* days instead of *three*, and if it is for the interest of every individual, that he should procure what he wants with the least possible quantity of labour, so must it be for the interest of *all* individuals, that is, the nation."

"But," rejoined my antagonist, "your argument is good applied to your commercial cities, where wheat is one dollar and a half a bushel, but it does not apply to an interior town where wheat is only worth half that price. For, you can perceive, that whilst your knife has cost you the equivalent of *one* bushel of wheat, mine has cost the equivalent of *two* bushels, and it is therefore clearly our interest to make our own penknives."

"That may be so or it may not be so, according to circumstances. If you can procure the foreign knife with less than two bushels of wheat, or, what is the same thing, with less than the price of two bushels of wheat, *which you could do were it not for the protective duty,* and, if the American made knife would cost you quite two bushels of wheat, or the price of two bushels, it would be for your interest, as well as for the interest of your nation, that you should resort to the commercial mode of procuring the knife; because by that mode a knife is brought into existence, at a cheaper rate, or what is the same thing, by a less sacrifice of labour, than by the process of manufacture. If, however, you have no foreign vent for your agricultural productions, then the manufacture of your own penknives comes round from the necessity of the case, and you make them yourselves, because you have not the means of buying them from others. If this be the state of things in regard to Pittsburg, why do you wish protective duties? Why do you, in order that you may make a few penknives for your own use, call upon congress to enact a law, that every body in the whole United States, shall pay fifty per cent. more for their penknives, than the price at which it is possible for them to procure them? This is what the advocates of free trade have so much reason to complain of.—They are told that England will not buy the productions of Pennsylvania, and that, therefore, there should be laws enacted to prohibit the people of Pennsylvania, from buying the productions of England. Now we say, no such laws are necessary. If Pennsylvania cannot sell, she cannot buy, and the best possible protection for the manufacturing industry of an inland town, is her limited ability to send the rude produce of her agriculture to a foreign market."

Note.—The above is not intended as a literal account of the conversation referred to, and as we have had an opportunity of amending our argument, we wish to afford to the gentleman referred to an opportunity of amending his.—We, therefore, respectfully invite him to favour us with a communication upon this important point, as it will enable our readers to form a judgment, as to whether the *manufacturing* mode of procuring a penknife, is to be preferred to the *agricultural and commercial* mode of procuring the same thing. The argument in relation to penknives is equally applicable to all other foreign commodities, and although the duty upon them is not so great as we have assumed for the sake of round numbers, yet upon many other articles it is much greater.

HOW TO BATHE.

Reader, we are disposed to take some care of your body as well as your mind. Be duly thankful, therefore, for the advice we are about to give you.

The spring bath come, "refreshed earth, reviving all but man;" your head aches, and you feel occasionally drowsy, languid, and uncomfortable.—Take a warm bath, it will relieve you in an hour; but take it in the proper way;

> "When 'tis done, 'twere well
> It were *not* done quickly;"

for in this lies the mischief of warm bathing. A man generally posts to a bath as if he were carrying an express, or running away from a broomstick. He is out of breath and in a perspiration on his arrival. He undresses himself in a great hurry, souses his body in the hot water, kicks about for five minutes, emergies with every pore open, puts on his garments, looks complacently in the mirror, and thinks he has taken a warm bath. No such thing: he has taken nothing but a cold. In one hour he begins to sneeze and the next day he commences coughing, and curses the bath. Philosophy grieves over his folly, but will not relieve his nose and lungs. Why did the bath give him a cold. Because he was in a perspiration when he went into the water, which said perspiration was increased by the heat, and checked as soon as raised into the colder medium of the air. The order of nature must be reversed to prevent a man from taking cold under such circumstances.

Now, reader, we will tell you how to take a bath In the first place, pay your note if it be due; or if you cannot do that let it be protested and think no more about it. Tranquility of mind is all important in rendering the warm bath beneficial. Walk leisurely to the house of ablution, and disrobe yourself with moderate haste. You may have the water hot enough to parboil you if you choose; that is left to your own taste. In with you; and, to beguile the time, read a newspaper or smoke a cigar. In about half an hour the water will cool to nearly the temperature of the air, and you will have gone gradually and safely through half a dozen climates. You will have left the torrid for the temperate zone. Then let in the cold water, very slowly, almost drop by drop; and in the course of twenty minutes you will find yourself in a cold bath. Your pores will have closed gradually and moderately, your sensations will be exquisite during the process, and you will feel strength and elasticity in every limb. You emerge from the cold water into the warm air, dry your body thoroughly with a coarse towel, and feel like a new man. It is an impossibility for you to take cold: if you do, you are at liberty to come and box our ears for giving you bad advice. [*N. Y. Cour.*

GOLD has recently been discovered in considerable quantities, in Burke county, N. C. A merchant from Morganton last week brought to this town, for the purpose of procuring it fluxed, eight or nine hundred dollars worth of fine gold, gathered in small quantities, during this spring, in Burke county. It was all found in alluvial earth, either on the borders, or in the beds, of small streams of water. It is in fine particles; and is familiarly known as "branch gold." We understand that, as yet, science and practical skill in mining have not been applied to the business in Burke.

While in Morganton, a few weeks back, we learned that *quicksilver*, in its pure state, is found in that county, in sufficient quantities to answer all the purposes of the miners in amalgamating their gold.

[*West Carolinian.*

Rome, March 13.

Mrs. Maria Stark, the celebrated authoress of the "Traveller's Guide through France and Italy," has been giving what are called *tableaux vivans.* These have a very curious effect—a number of individuals place themselves in the exact attitude and dress of the figures in a celebrated picture, upon a stage, around which is arranged a kind of frame, and between the individuals thus placed and the audience, who ought to be at a considerable distance, is drawn a thin veil. The effect produced upon an observer standing at a little distance is exactly that of a picture. At Mrs. Stark's house the celebrated painting by Raphael of Mount Parnasus was thus represented, in a style that astonished the crowd of Romans and English who attended. A Mrs. Glasgow has also been giving several representations of a similar nature. This species of amusement, which is peculiar to Italy, was first introduced with the view of improving the pictoral taste of the people, by bringing before them in succession specimens of the different schools of painting; and, when performed on a public stage, generally attracts a crowded audience.

ACCIDENT AND PROVIDENTIAL ESCAPE.

Albany, May 13.

Owing to the late rains, the Schoharie creek is much swoollen and rapid, and its passage at its intersection with the Erie canal, difficult and hazardous. It is now passed by means of ropes, suspended from one side of the creek to the other, to which the painters or ropes at the stern and bows of the boats are attached. About sundown on Tuesday afternoon, a packet boat, on its passage west, having about forty passengers on board, attempted to cross; but having been struck suddenly by the current, the support of the ropes was lost, and the boat passed rapidly down the creek about twenty rods, and turning broadside, went over the dam, 8 or 10 feet high. What is singular, although the baggage which was on deck, was all thrown into the creek, not a passenger was thrown out or hurt. The baggage sunk and had not been recovered on Tuesday night; though it was believed it would be. In one of the trunks was $7000, and in another $5000, belonging to two of the passengers.

(Items from late English Papers.)

A Mr. Von Zedlitz, in his latest statistical account of the Prussian monarchy (Berlin, 1828,) not only gives the average state of the population, viz: 2435 to a German square mile, the number of villages and market-places, (60,000,) of towns, &c., but goes so far as to state the number of buildings, in the whole monarchy to be 3,267,000. In 1825 the number of schools in Prussia was estimated at 21,623, with 22,261 school-masters and mistresses.

According to Gädicke's newest guide through Berlin, it contains 294 streets, 32 open places, 7330 houses, and 220,000 inhabitants. The garrison is calculated to be rather less than 12,000 men. Every house where a great man has died is specially mentioned.

At one of the late sittings of the Academy of Sciences of Metz, an account was given of a new experiment, in order to ascertain the presence of cotton in woollen stuffs. An ounce of pure alkali, or caustic, is to be dissolved in half a pound of water, and the suspected stuff is to be boiled in it about a couple of hours. If the stuff is composed wholly of wool it will be entirely dissolved, and will form a species of soap-suds on the surface of the water, and should run through a fine sieve when poured into it boiling hot. If on the contrary, the stuff contains cotton, or other vegetable fibres, they will perhaps undergo some alteration; but they will not entirely dissolve, but will remain upon the sieve like the pieces of rags in paper mills—for alkali, one of whose properties is to dissolve animal substances, has very little effect upon vegetable ones.—*Paris Pa.*

Several gentlemen have recently succeeded in relieving themselves from severe fits of gout by covering the parts affected thickly with raw-cotton; the kind called Uplands has been found to answer very well. When a sufficient quantity of this has been well bound about the hand or foot overnight, in various instances, that have been stated to us by the parties themselves, all traces of the complaint have been removed before morning. We have not much faith in specifics; but, at least, the remedy we have mentioned is worth a trial, since it can do no harm.

[*Manchester Guardian.*

The *nopal*, which produces the cochineal, is a plant consisting of little stem, but expanding itself into wide thick leaves, more or less prickly according to its different kind; one or two of these leaves being set as one plant, at the distance of two or three feet square from each other, are inoculated with the cochineal, which is an insect; it is the same as if we were to take the blight off an apple or other common tree, and rub a small portion of it on another tree free from the contagion, when the consequence would be that the tree so inoculated would become covered with the blight; a small quantity of the insects in question is sufficient for each plant, which, in proportion as it increases its leaves, is sure to be covered with the costly parasite. When the plant is perfectly saturated, the cochineal is scraped off with great care.

THE FARMER.

BALTIMORE, FRIDAY, JUNE 5, 1829.

☞ The legislature of Virginia, with a praiseworthy regard for the collection and diffusion of knowledge, has established a library, for the several departments of the government, and made such ample provision for its increase, as will insure a most extensive collection in Law, Literature, Science and the Arts.

BURNING OYSTER SHELLS FOR MANURE—*Inquiry.*

I would ask for information on this subject. The manner of building the kiln; the size square; the number of bushels of shells which may be burnt in one kiln to most advantage, &c. &c.

And how many bushels should be put to the acre of *good* land; at what season, and preparatory to what crops, &c. And any other information that may be of use to a NOVICE.

☞ ATTAR OF ROSES.—Ghazeepon is celebrated throughout India for the beauty and extent of its rose-gardens; the rose-fields occupy many hundred acres; the roses are cultivated for distillation, and for making attar. The price of a sieve, or 2lbs. weight (a large quart) of the best rose-water is eight linas, or a shilling. The attar is obtained, after the rose-water is made, by setting it out during the night until sun-rise, in large open vessels, exposed to the air, and then skimming off the essential oil which floats on the top. To produce one rupee's weight of attar, 200,000 well grown roses are required. The juice, even on the spot, is extravagantly dear.

☞ PRESERVATION OF EGGS.—It has long been known that eggs may be kept perfectly well for nine or ten months in lime-water. A still more effectual way of preserving them has been tried; it is that of depositing them in a weak solution of hydrochlorate of chalk (thirty grains of salt to a pound of water,) the liquid always above the eggs, and to stand in a cool situation. So treated, they have been kept for a whole year, preserving all their freshness. It has been suggested that the sulphate of iron would have the same effect.

☞ TO PRESERVE SEEDS FIT FOR VEGETATION.—Fill an old cask half full of earth, put the seeds as near as possible to the middle of the cask, then fill the latter entirely with moist earth, pressing it down, and finally closing the cask, so that neither air nor water may enter it. Keep it from contact with the sea-water. In this manner seeds may be brought from the East Indies or New Holland, in a state of perfect preservation, and fit to vegetate.

BALTIMORE MARKET.—The wagon price of Howard street flour remains at $6.12½, the store price is $6.25 a $6.37½. *Live Stock*—Beef on the hoof is very scarce; this however has not raised the prices. A sale was made last week by Mr. Beale, of Virginia, of one hundred cattle from the Scioto, Ohio, at from $5.50 to $6.25 per hundred. This lot was of as good a stock as has been in market this spring.

☞ There has been no foreign intelligence received since our last.

Prices Current in Boston, May 29.

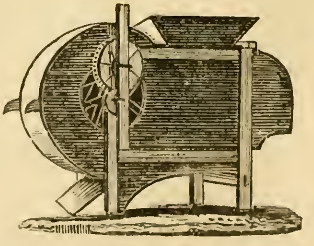
Apples, best, bbl. $3.00 a 5.00. *Beans*, white, bushel 1.00 a 1.37. *Beef*, mess, bbl. 10.25 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 7.00 a 7.12; Genesee, 7.00 a 7.50; Rye, best, —. *Grain*, Corn, bush. .60 a 62; Rye, .70 a .80; Barley .67; Oats .31 a .37. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 16.00 a 16.50; Navy, mess, 13.00 a 13.50; Cargo, No. 1, 13.00 a 13.25. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel 1.50. *Wool*, Merino, full blood, washed, .30 a .37; do. do. unwashed, .22 a .24; do. three-fourths washed, .25 a .30, do. half and quarter washed, .22 a .26; Native, washed .20 a .25; Pulled, Lambs', 1st sort, .35 a 37; do. 2d sort, .22 a .28; do. spinning, 1st sort, 27 a .30.

Prices Current in New York, May 30.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .10 a .12; Upland, .8¾ a .10½; Alabama, .9 a 11. *Cotton Bagging*, Hemp .19 a .21; Flax .15 a .18. *Flax*, American .8 a .9. *Flaxseed*, rough, tierce ——; clean ——. *Flour*, N.York, bbl. —— a 6.87½; Canal 6.87 a 7.12; Baltimore Howard st. 7.12½ a 7.25; Richmond city mills, 7; country, 6.87½; Alexandria, 6.87½ a 7.00; Fredericksburg 6.75.; Petersburg, 6.75; Rye Flour, 4.00 a 4.12½; Indian Meal, per bbl. 2.50; per hhd. 13.00 a 13.50. *Grain*, Wheat, Virginia 1.38 a 1.40; N. Carolina 1. 40 a 1.50; Rye, North, .73 a. 75; Corn, Yellow, North, .56 a .57; Barley, 55; Oats, South and North, .40 a .48; Peas, white, dry 7 bu. ——; Beans, 7 bu. 8.00 a 8.50. *Provisions*, Beef, mess 10.00 a 10.50; prime 7.75 a 8.50; cargo 6.00. Butter, N. York, —— a —; shipping, .8 a .11; Lard, .5 a .6; Pork, mess 12.50 a 12.87½; prime 9.75 a 10.00, cargo 9.00 a ——; Hams, Va., per lb. .9 a .10; Northern .8 a .10. *Rice* .2¾ a .3. *Tobacco*, Virginia .3½ a .5½ a .6½; Kentucky, .3¼ a 5½ a .6½. *Wool*, Merino, American fleece, .32 a .38; Pulled, .32 a .35; common, .18 a .25; Pulled, spinning, .18 a .33.

Prices Current in Philadelphia, June 2.

Bees-wax, yellow .23 a .24; *Beans*, bushel $1.25 a 1.50; *Beef*, mess 10 a 11, prime 8 a 9.50, cargo 7; *Butter*, No. 1, .8 a .8½, No. 2, .5 a .6; *Cotton*, New Orleans .11 a .13, Upland .9 a .10½, Tennessee .9 a .10½, Alabama .9 a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .8 a .8½. *Flour*, super. 6.75; fine 6.62½; Rye 3.00 a 4.00; Cornmeal, hds. 11.50 a ——, bls. 2.00 a 2.25; *Flaxseed*, cask —— a ——; bu. 1.35; *Grain*, Wheat 1.30 a 1.40; Rye .60 a.65, Corn l. c. white, .44 a .45, l. c. yellow, .47 a .48, u. c. round, .50 a .52; Oats .30 a .40, Barley, Pa. .— a .—; do. Eastern, .60; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western 8; *Hemp*, 210; *Lard*, .6 a .8; *Oil*, linseed, .80; *Pork*, mess, 13.00 a 13.25, prime 11.50 a 12, cargo 10.25 a 10.50; *Rice*, 2.75 a 3.25; *Tobacco*, Kentucky .4 a .7, Virginia .4½ a .7; *Wool*, common washed lb. .28 a .30, half blood .30 a .33, three quarters blood .33 a .35, full blood .36 a .40; unwashed, generally 10 cents less, according to quality.



FURTHER IMPROVEMENTS IN THE WHEAT FAN INTRODUCED.

From the excellent character the subscribers have heard, for some time, of the mode of communicating the motion to the shoe of the fan, used in some parts of Pennsylvania, they determined to have a set of patterns made, and are now building some fans on that plan; its regular and easy motion promises durability to the machine and ease to the workmen.

Within the periphery of the cog wheel, are a set of level cogs, which work into a level pinion on the end of an iron rod, which passes along the side of the fan, and connects, by means of a crank, to the shoe—by this fixture, more or less shake can be given to the riddles at pleasure.

SINCLAIR & MOORE,
Pratt-st. wharf, Baltimore.
June 4, 1829.

ALMANAC.

1829. JUNE.		SUN. Rises.		SUN. Sets.		Length of days.		Moon Sets.	
		H.	M.	H.	M.	H.	M.	H.	M.
Saturday,......	6	4	40	7	20	14	40	11	5
Sunday,........	7	4	39	7	21	14	42	11	37
Monday,.......	8	4	39	7	21	14	42	morn.	
Tuesday,......	9	4	39	7	21	14	42	0	7
Wednesday,..	10	4	38	7	22	14	44	0	37
Thursday,.....	11	4	38	7	22	14	44	1	6
Friday,.........	12	4	38	7	22	14	44	1	36

Moon, First Quarter, 9th, 8 h. 16 m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

TOBACCO.—Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 6.00—red, 5.00 *a* 8.00—fine red, 8.00 *a* 10.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red 8.00 *a* 12.00—fine yellow 10.00 *a* 20.00—Rappahannock, 4.00 *a* 6.00—Kentucky, common 5.00 *a* 7.00—wrapping, 6.00 *a* 8.00.

FLOUR—best white wheat family, $7.50—superfine Howard-st. 6.25 *a* 6.37½; city mills, 6.00 *a* —— Susquehanna, 6.00—CORN MEAL, bbl. 2.50—GRAIN, best red wheat, 1.10 *a* 1.20—best white do. 1.20 *a* 1.35—ord. to good, .70 *a* 1.10—CORN, white, .38 *a* .40; yellow, .40 *a* .42—RYE, .50 *a* .55—OATS, .28 *a* .32—BEANS, 1.00 *a* 1.25—PEAS, .55 *a* .60—CLOVER SEED, 3.50 *a* 4.50—TIMOTHY, 2 *a* 2.50—ORCHARD GRASS, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a*.50lb.—BARLEY, .45 *a*.50—FLAXSEED, 1.00—COTTON, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alab. .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Geo. .9 *a* .12—WHISKEY, hhds. 1st pf. .23—in bbls. .24 *a* 25—WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—HEMP, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 4.00 *a* 4.12½; No. 2, 3.50 *a* 3.75—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—BACON, hams, Balt. cured, new, .9½ *a* .10; old, 11; do. E. Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .29—Plaster Paris, cargo price per ton, $3.50, ground, 1.25 bbl.—Prime Beef on the hoof, $5.50 *a* $6.25.

MARKETING.—Apples, per bu., $2.00; Strawberries, 12½ *a* 15 per quart; Peas, 1.00 *a* —— per bu.; Squabs, 18¾; Young Chickens, 2.00 *a* 2.50 per doz.; Butter, lb. .31¼ *a* 37½; Eggs, .10 *a* .11; Potatoes, Irish, bush. 1.00 *a* 1.50; Fowls, doz. 3 *a* 3.75; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .87½; *a* 1.00 Sausages, lb. .8; Shad, 10.00 *a* 12.00 per hundred; Terrapins, 4.00 *a* 4.50 per doz; Pork, 5.50 *a* 6.00 cwt.

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AGRICULTURE.

(From the British Farmer's Magazine, May 1829.)

ON THE DISEASES OF GRAIN.

Sir,—Having read a number of interesting communications, in the *British Farmer's Magazine*, attempting to account for the cause which produces smut in wheat, I am induced to send you the following relation of the means which have been discovered on the continent to prevent the diseases of grain. It was drawn up many years ago by M. Desmazieres, of Lisle, in France; and if you think favourably of it, the insertion of the annexed translation in your valuable work—for I am inclined to think it has not been sufficiently known—will probably furnish hints which may enable the intelligent farmers of our own country to ascertain the accuracy of the doctrines therein laid down. F.

On the principal Accidents and Diseases to which Wheat and the other Cereal Plants are liable, and the means which may be employed to prevent them.

Wheat is subject to many accidents or diseases, which desolate the districts where it is propagated. They diminish, and sometimes totally destroy, the crop; and the unfortunate husbandman occasionally sees all his hopes blasted, and that in a very short period of time. Many enlightened naturalists have devoted their attention to ascertain the causes, that they may prevent these fatal effects. Among these I ought particularly to mention M. Tillet, l'Abbé Tessier, and M. Benedict Prevost, whose works have thrown the greatest light upon a subject so interesting, both in regard to agriculture and the physiology of vegetables. Notwithstanding the details, perhaps too long, into which I am forced to enter, I shall here report a part of the observations of these learned philanthropists, and the opinions of other naturalists, regarding the diseases of a plant, one of the greatest blessings which have been bestowed upon us by the Creator.

I ought to observe, that in treating of the diseases of wheat, I speak also of those of oats, barley, rye, Turkey wheat, &c.; so that, in the chapters regarding these plants, I shall refer the reader to this.

Of the Smut.

Smut (*la carie*, also called *bosse, elogue, chanbucle, bruine* or *brouine*) is one of the diseases of wheat the most generally to be met with, and whose ravages are the most considerable. It is not uncommon, in some countries, to see twice or three times as many smutted ears of corn as sound ones.

The corn which is attacked by it is of a brown or grayish colour; its envelope becomes parched and dry, and contains only a black delicate powder, with a strong disagreeable smell, particularly when it is fresh.

The smutted ears ripen sooner than the others: they are narrow, and may be known by a peculiar green colour. They do not rest upon their stem, like the sound ears; they remain erect, and do not flower, although the staminæ are formed. The plant of the smutted corn is generally lower; the top of the stem, immediately under the ear, is a little crooked; and its straw is less white than that of the rest. Smutted and sound ears are sometimes found on the same stem, sound and smutted grains on the same ear, and even the same grain may sometimes be only *partly* smutted.

Smut, therefore, attacks the interior of the grain without changing the nature of the chaff or of the other parts of the ear, which, however, it disfigures more or less, as well as the stem. When the rust is in the crop, it has been also remarked that the smutted plants are most attacked by it.

Much has been written on the subject of smut; but the country people consider many circumstances as the *causes* of it, which are, in fact, only symptoms of its effects; so that it will be unnecessary to enter into any discussion on their opinions.

Messrs. Fourcroy and Vauquelin gave, in 1804, a chemical analysis of the smut—which has led them to conclude that this substance was a degeneracy of the gluten of the farina. M. Parmentier considers the perisperm as the part of the grain which is chiefly attacked, according to the results he obtained; and which appeared rather to belong to the thick oils than to farinaceous substances. But I do not think that by chemical analysis alone, however correctly made, the true cause of this disease can be discovered.

Adanson says, in comparing the powder of smut to that of *vessesloup*, that, on examining it in a microscope, he had been led to conjecture that it is owing to a vegetable, analogous to the plants of that class. M. Tessier was also persuaded that this disease could neither proceed from the soil, from the manures, nor from the moisture of the atmosphere. And M. Bernard de Jussieu, in his inquiries as to its primitive cause, has thought that smutted grains contained a kind of *lycoperdon* or *reticularia*. His opinion has since been adopted by the generality of botanists.

As yet, however, no certain proofs had been obtained in confirmation of this conjecture; all the *data* were uncertain, and the cause of smut continued problematical, until the ingenious observations made by M. Prevost.

In making experiments on the means of preventing the smut, this respectable naturalist also directed his attention to the direct cause of this scourge of the crops. By frequent experiments he ascertained that the globules of the smut are organized bodies, or, to speak more correctly, the seeds (*gemmes, gemmules, gongyles*) of a microscopic plant, and that this plant was the cause of the disease in the grain. After having placed these seeds in water, or in some very moist substances which might be favourable to their vegetation, he saw them produce small cylindrical stems of different sizes, often articulated, sometimes simple, and at others assuming at the extremity the form of small stars, the rays of which, though at first very short, became afterwards long, like straight, narrow leaves. Often, also, this extremity spread itself into a thick mass, which appeared composed of small filaments interwoven with each other, and, as it were, twisted like cotton. Two or three days after vegetation had commenced, he remarked upon the congregated stems some small, oblong, pediculated bodies, which were the real fruit of the plant, and in which he sometimes thought he saw particles of an astonishing minuteness. The sprigs that shot out from the blown and conglomerated stems often grew to a considerable length; they twisted together, and sometimes produced new ramifications. The fructiform productions, which were found upon the same stalks, often remained fixed together after the latter had disengaged themselves; and they changed their respective positions, like flowers or fruits, upon branches which continue to increase in growth. After some time the whole disappears, and there remain only some detached globules, which would probably have become seeds, similar to those from which they originated, if they had been in a convenient position—that is, in the embryon of the grain of some young blade of corn.

It has been proved, by the most ingenious observations, that the plant of the smut originates on that of wheat, or in its neighbourhood, and not within, by the introduction of seeds into the roots and vessels, as other authors have advanced; that its stems, its shoots, or some other of its productions, penetrate into the plant of the wheat whilst it is still very young; that it reaches to the seat of the embryo of the grain, where it produces globules, which increase with the ear, and become perfect seeds when the wheat approaches to maturity.

This plant, so small and delicate, would soon be destroyed by the winds, by rain, and by all the variations of the atmosphere, if wheat did not offer an asylum where it could propagate itself. Its seeds, or *gemmes*, grow there and unfold themselves by the aid of dews or of the moisture upon the wheat plant when it begins to appear, or on the earth, before it has been produced. Then it is that the blades of tufts already blown, introduce themselves upon the stem: the plant of the smut may perish, yet its branches continue to vegetate there.

I have said that it is only at the moment of germination, or soon afterwards, that the plant of smut is introduced into that of wheat. In fact, if one rubs with smut the stems and the ears of wheat already advanced, either none or very little smutted grain will be produced; but, on the other hand, if the smut be spread over the soil, either after or a little while before the wheat is sown, there will be a great quantity. The fact is likewise proved by other experiments.

Thus it is now proved that smut is a plant destined to pass a part of its existence in wheat, and to nourish itself on the grain. It may be considered as an *intestine plant*, and may be compared in that respect to worms in the intestines of animals.

After what has been said of smut, one can easily conceive that this malady is contagious, as has been long remarked; and in order that it may take place, it is necessary that its seeds should be scattered upon the grain of wheat, or upon the young plant, or well mixed with the soil in which it is grown. But this contact alone with smut will not suffice. To spread the infection in greater quantity, it is necessary that the seeds should be disseminated or separated one from the other; and as they do not begin to vegetate unless the atmosphere has access to them, the contact of the air is absolutely necessary for their propagation. It has likewise been remarked that wheat, when very dry, if sprinkled with smut that is in a dry state, is not in general much smutted; on the other hand, if the wheat is in a moist state, and the smut very fresh, few of the plants escape the disease. These facts coincide perfectly with the observations which have been made for a long time in the country—which I shall now endeavour to explain.

Late sowing, or the incomplete maturity of the plants, are circumstances which are favourable to the propagation of smut; for the seeds sown in that case produce plants weak and languishing, and which cannot resist the contagion.

The shade of houses or of great trees, a soil either ill cultivated, or where the cultivation is fresh and recent, are likewise causes which produce and multiply smut. Rainy and cold seasons, fogs and vapours, are much to be dreaded. Fields near to ponds and rivers are ordinarily more infected with this parasitical plant than those which are more distant, and consequently less subject to such influence. Experience has likewise proved, that wheat sown in the morning, in a thick fog, is more subject to the smut than when sown in the middle of the day, when the fog is dissipated. In illustration of this curious fact I shall give the following anecdote:—A farmer, on working the lands of a rich commandery at Malta, was found by M. Hardouin sitting on a sack of seed. It was a beautiful day, the sun shining brilliantly, and not a cloud to be seen. M. Hardouin went up to him, and asked him why he was not sowing? "Because the land is ill," said the labourer. "What is the matter with it?" replied M. Hardouin. "It sweats," said the other: "stoop down, and you will see a cold vapour coming from it. I am sixty years old, and this was pointed out to me by my father. I shall wait, or else I should have black wheat." He considered this transpiration as having an influence upon the seed, if sown during its occurrence. The labourer added, that in the preceding year, there had been only two days proper for sowing, and that the harvest was most abundant; while the part of the field which was sown in unfavourable weather, produced a prodigious quantity of smutted corn.

The older smut is, the longer time it requires to commence its vegetation; and when it is very old it does not vegetate at all. Wheat infected with smut six years old is not so apt to be diseased as that which is quite new; and at the end of some years it ceases to vegetate. M. Tillet propagated this malady for twenty years with the powder of the smut of the same year—and at last it produced no effect.

Cold and strong frosts do not injure, to any degree, the development of the seeds of smut. When put in water of forty degrees, it vegetated with difficulty; when put in boiling water, and in every other respect similarly treated, it lost very quickly its power of germination.

Let us next consider the preventives which have been made use of against this scourge of agriculture. It has been remarked, for a long period, that there are several substances united to water which give it the faculty of destroying the germ of smut.

M. Tessier, after trying a great number of experiments, proposed four methods, of which lime formed the basis. In the first, it is simply mixed with water; in the second, it is combined with salts; in the third, it is mixed with volatile alkali; and in the fourth, with fixed alkali, potash, or soda. In the three first mentioned methods, he puts two gallons of the liquid, very hot, upon about three bushels of corn; and in the fourth method, about five pints more of the liquid to the same quantity of corn. The best mode of using these steepings, is to leave the corn in them from twenty-four to twenty-eight hours. In the third method, a quantity of pigeons' or fowls' dung, which gives out ammonia, should be steeped in the liquid for a fortnight previously to its use.

Besides the steepings, the Abbe Tessier recommends, that before the seed be submitted to the operation it be purified, either by washing it in warm water, by sifting through the hands, or by means of mills, sieves, &c.

The following is the method of M. Cadet de Vaux, which he calls *steeping by immersion*, because the seed is plunged into the liquid instead of pouring the latter upon it. You first put the wheat in a tub containing the liquid. Boil a portion of the liquid in which lime has been slaked. The proportions are about 240 lbs. of corn to from four to five gallons of water, according to the greater or less dryness of the seed, with from 2 lbs. to 2½ lbs. of quick lime, according to the strength of the latter, or to the greater or less quantity of the smut: then add the remainder of the water. The heat of the whole ought to be such that the hand can scarcely be held in it. You then pour gradually the lime-water upon the seed—stirring both about, the latter with a spatula, the former with a fork or peel. It is necessary for the water to be about three or four fingers' breadth above the corn, as it will soon absorb this quantity: then cover the vessel, and leave the seed immersed for twenty-four hours—taking care to stir the whole about five or six times in the course of the day, or else open the spigot, draw off the liquid, and pour it on again.

The dung should be diluted in the portion of cold water, with any thing else that may be used instead of the cold water.

At the expiration of the twenty-four hours, withdraw the steeping and take out the corn; it is then fit to be sown on the same day, for by exposing it to the air only a few hours, it gets dry enough to slip through the hands.

It appears that in all these steepings the lime acts upon the smut either mechanically—by forming a sort of crust or varnish upon the seed, which afterwards comes off and carries with it a part of the smut—or, which is more likely, by a chemical effect, which destroys the particles, or *gemmes*, by depriving them of the faculty of germinating.

Such are the methods which some writers have proposed and others recommended, and which are at the present time almost generally adopted. Yet it is my opinion, that these preparations, which were, doubtless, the most safe and advantageous known at the time they were described, ought to give way to the more effectual discoveries of the present day. In fact, experience has proved that steeping the seed does not always answer the object of those by whom it is practised, even after they have taken the greatest care. The chemical action, when lime-water is applied, is weak, and cannot always preserve wheat from the attacks of smut, which so closely attaches itself to tha grain. On the other hand, whatever is the mode of washing wheat, though it may remove a considerable quantity of the smut, it may not always destroy the whole.

If the effect of steeping is uncertain, and if the operations it requires are tedious, and in some degree expensive, that is not the case when the sulphate of copper (or copperas or blue vitriol), as proposed by M. Benedict Prevost, is made use of, which is much simpler, and, I believe, *infallible.* I shall give his method in a few words:—we cannot propagate too much his important discoveries.

In searching for those substances which unite in the highest degree all the qualities of a preventive applicable to agriculture, the author discovered, by a fortunate accident, that *copper* was the one to be preferred. Having put several hundred of the seeds of smut into water which had been distilled in an alembic of copper, to his great astonishment he observed that these seeds either did not vegetate at all or very imperfectly; whilst other seeds, put in ordinary water, germinated as usual. Thence he directed his researches to copper and copperas salts, and he obtained from thence the happiest and most satisfactory results.

In order to ascertain the extent of the influence of the copper upon the germination and vegetation of smut, he made use of a plate of this metal, entirely freed from verdigris, containing a surface of two square inches. He found that after the plate had remained sixty or sixty-two hours in the water, the seeds which he afterwards placed upon it either did not come up at all, or came up very ill, and produced only deformed stems on the surface of the water: at the bottom he perceived no symptom of vegetation. But as such a process would be very inconvenient in practice, he directed his attention to the effect of salts from copper, and particularly to the sulphate of copper, or blue vitriol, as being the most easily procured. The result of these experiments is—

That smut does not germinate at all in common water, in which there has been dissolved a 280,000th part of its weight of sulphate of copper; the temperature being five or six degrees. That the presence of this salt, in the proportion of a 600,000th, or even a 1,000,000th part retards it perceptibly. And, lastly, that a solution of this sulphate in water, in the proportion of a 10,000th part of its weight, is sufficient to take from smut the power of germinating, when steeped in it only for an hour or two, though washed immediately afterwards.

But it was not enough to observe the effects of copper, and the sulphate of that metal upon the germination of smut placed in water or upon moist substances; it was also necessary to try experiments upon infected grain sown in the open field—this is what M. Prevost undertook with equal success.

Infected grain, steeped in water which had remained two days in a copper vessel, where it was occasionally stirred about, and the copper a little rubbed, gave one-sixth of smut.

Infected corn, steeped in boiling water in the same vessel, when the water grew cold, gave one-sixth of smut.*

Infected corn, well steeped in a solution of sulphate of copper, containing this salt in proportion of four *decagrammes* to each *hectolitre*, gave a 300th of smut.

Infected corn, simply scalded, gave one-fifth of smut.

Infected corn, sown without any preservative, gave a third of smut.

Sound corn, sown without any preservative, gave a 150th of smut.

(To be continued.)

(From the New England Farmer.)

LUCERNE.

Mr Editor,—Being fully convinced, that the Lucerne† grass will be a most important and valuable substitute for clover, I think it a duty, to add the further experience, which I have had in relation to it. I have now four distinct species of it. One is now in its *eighth* summer, two in their third, and one in its second. While orchard grass and clover perished in our late trying winter in considerable quantities, the lucerne is more vigorous than ever. Those who know the great depth, to which this root extends, will not be surprised at this result. I cut Lucerne for soiling (even this late season) on the tenth of May, and the *new* shoots, after cutting, are at this time eight inches high. I have it growing from seed sent to me by the society of the Georgio-fili at Florence, (a name which signifies friends of agriculture)—from seed brought home from Chili, by Commodore Hull, and from American seed. They are all the same plant, the *Medicago sativa* of the botanists.

The grounds of preference of the lucerne to the clover, are the following:

1. The clover is a biennial plant, and like all biennial plants, it furnishes a poor, or no crop the first year, and dies at the end of the second. If uninformed minds should oppose this last assertion, because they find clover always in their grounds, I reply, that this is, because its seeds are abundant in our soil and manure, and there is a constant succession of plants—but let any one sow clover only, and in the third summer his field will present a most desolate appearance.

2. The next superiority of lucerne over clover is, that it will give three crops, often four, at least, in good land, in the same season, in which it is sown, provided it be sown in April. In this respect, I am able to assert, from experience, that it is better adapted to our climate, than even to that of France, for reasons which I think, in addition to the FACT, would be satisfactory.

3. The lucerne is nut so coarse a grass, as the clover—its stalks never become so woody, and yet they are stiffer, and less liable to lodge.

As to curing it for hay, it is about as troublesome as clover, but if got in half cured and salted, it makes a better hay. Now, let me not *be misunderstood* on this subject. There is nothing, which is so injurious to the prevalence of sound opinions on all subjects, as *exaggeration.* It has done more mischief in all arts and sciences, than any *other* cause.

Lucerne is only to be compared with *clover.* It is no sort of substitute for the culmiferous grasses. It cannot be put, for a moment, in competition.

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* It ought here to be remarked, that these two experiments may be said to have been confounded on the soil; and that it is to be presumed that the first ought to produce much less smut than the second.

† I always use the French orthography for this grass, because I know no sufficient reason for changing it to Lucern.

with herds grass, as we call it, or timothy, as the southern people term it--or for orchard grass, or for pratensis, or red top, or the meadow foxtail, or the excellent grass recommended by Mr. Phinney, the tall meadow oat grass. These grasses are, and must be, *forever*, our chief dependence for excellent hay.

I recommend the *lucerne solely* as a substitute for Dutch *clover*, and it ought to take its place, and, within twenty years, it *will* take its place every where in America. I say it, without fear of ridicule.

The lucerne is the favorite grass of France, south of the river Loire, of Spain, Portugal and Italy—of Rio Janeiro--of Buenos Ayres, and Chili. Why does it suit these climates? Because its long taproot enables it to sustain the long droughts and excessive heats of these climates.--But we, in Massachusetts, are subject, in an eminent degree, to these same evils. When our crops fail, it is *chiefly owing* to these causes. The lucerne is calculated for early and late pasturage--for small farmers, yielding at least double the quantity of food, which any other plant can do. I may be called a *speculative* farmer, and I am so, if twenty-five years' close attention entitles me to the name. But *practical* farmers will find, that so far as it respects *this* production, my experiments have not been without their *practical* use.

Grafting Materials.

Not discouraged, by all which has been written on this topic with us, I am induced to give the latest improvement in England on this subject.—As an experiment, derived and recommended from *such* a source, it would have its value, but it, at once, recommended itself to my notice, for its simplicity, neatness, and reasonableness. I shall subjoin my account of its success with me.

The new method is thus described in a letter from David Powell, Esq. inserted in the London Horticultural Transactions, vol. v. I shall only introduce the essential directions.

"Grafting wax properly prepared, when in a melted state, is spread evenly on sheets of moderately thin brown paper, which when cold is cut into strips about three-quarters of an inch wide. When one of these strips is to be used, warm it with the breath, and bind it round the stock and scion, pressing it gently with the hand, when it will be found to adhere so closely as totally to exclude both air and moisture. No further care is necessary, though it may be as well to look over the grafts occasionally, pressing the paper close with the hand where it may have before been occasionally missed." This plan of applying wax cements instead of clay, struck me at once, as not only exceedingly simple, but admirable for its neatness.

I accordingly treated one hundred grafts in this mode. I procured some coarse, but strong and flexible brown paper, made of tarred cordage, and having prepared the grafting wax, by the recipe subjoined, I spread it with great facility, by a common table knife, over the paper evenly. It cools instantly. I then cut it into strips of about an inch wide. In a warm sun, it requires no heating—but in a cool day, the breath will warm it sufficiently. As soon as the graft is inserted and tied with matting, or twine, the strip is wound round from the bottom of the cleft, to the insertion and sawed end, and doubled over that. The operation requires *five seconds only*, and the air is most effectually excluded.

I put in grafts with clay, and with this *new* method, and the success of the last was *much greater* than with the clay. Six weeks have now elapsed, and the covering is perfect. Neither rains, nor sun affect it. There is one other great benefit. The paper is made stronger by the grafting wax, and may be unwound, and taken off without injuring the bark. I have applied it to green-house plants—to the Camellia. Here, permit me to add, for the benefit of florists, that the Camellia, heretofore *grafted only* by approach, is found to succeed equally well, if grafted in the *manner of approach grafting*, the scion cut off, and the end left long enough below, to insert it into the neck of a phial of water, or into a turnip, or potato. The grafting composition recommended in England, and which I used, was 1 lb. of pitch; 1 lb. of rosin; ¼ lb. of bees wax; ¼ lb. of hog's lard; ¼ lb. of turpentine. I hold, however, *very cheap*, all these *specific nostrums;* great variations may be made in them, taking care to see, that the compound is neither too stiff to use, nor too soft to melt, under the solar heat. I have been very tedious, but could not well abbreviate my remarks. J. LOWELL.

Roxbury, June 1, 1829.

GREASE OF WOOL.

M. Chevreul read a memoir on the fat matter of wool to the Academy of Sciences of Paris, on the 8th Sept. 1828. The facts exposed in this memoir are detached from an extensive investigation of the principal varieties of wool, with respect to their immediate composition, with the view of appreciating the influence of the different substances which they may contain, and which are foreign to their tissue. The author has extracted from Merino wool, previously washed in pure water, at least 18-100ths of fat matter. It was principally to this matter that he called the attention of the society in the memoir which he presented to it. It is formed of at least two immediate principles, which differ from each other in their degree of liquefaction. The one at the ordinary temperature, is like wax; while the other, in the same circumstances, is like prepared turpentine.—Both form emulsions with water, and in this respect they differ from stearine and oleine, and approach the fat matter of the brain. On keeping them over the fire, in circumstances where oleine and stearine would be converted into soap, the immediate principles of the fat matter of the wool are not saponified. These principles did not appear to be azotized, as is the fat matter of the brain. It is remarkable that the tissue of wool which has been deprived of 18-100ths of fat matter, does not shew itself much more apt to be dyed than it was before, as might have been imagined, from what is admitted respecting the necessity of cleaning wool before dyeing it. The wool which has lost its fat matter, contains the sulphur which is remarked in wool in its original state; and both kinds, on being treated with alum and tartar, disengage hydro-sulphuric acid. It is to the sulphur contained in wool that the phenomena of coloration are to be attributed which it presents, when it is heated in a solution of acetate of lead, of acetate of alumina holding acetate of lead, protochloride of tin, &c. [*English paper.*

EVERY MAN A FARMER.

The cultivation of the earth is congenial to the nature of mankind; and a very large proportion of men, during some share of their lives, either do, or have a desire to become farmers. Besides those who, in civilized countries, are bred to the culture of the soil, and make it their sole pursuit through life, there are thousands of others who retire from the bustle and anxieties of trade, the vexations of a professional, or the turmoils of a public life, to rural quiet and the undisturbed cultivation of a few acres of land. The merchant, whose youth has been spent behind the counter, whose prime of life and middle age have passed between the leger and the strong box, between the hopes of gain and the fears of loss, having at length realized a *plum*, retires from the crowded city and the anxieties of trade, to the pure air of the country and the peaceful cultivation of a farm. The lawyer having acquired wealth and professional fame, abandons his causes for a more tempting cause, the pursuit of agriculture, or mingles with his professional labors the exercise of the spade and plough. In like manner the physician and the divine, the curers of physical and moral diseases, consult their own health and quiet; and find a balm for body and mind, by snatching a few hours from the calls of professional duty to apply them to the grateful pursuits of tilling the earth. Why should we mention the statesman and the warrior? They, too, are inclined to become farmers; the one leaving the field of ambition, the other his harvest of laurels, both seek a soil more congenial to the best feelings of man, and end the career of life, like Cincinnatus, at the plough. Even the mariner, the adventurous son of Neptune, whose home has been for many years, professionally and practically, on the deep—who has sailed to all lands and visited every sea, bringing with him the rarities of every country and the products of every clime--purchases a home on the land, transplants his exotics into his native soil, and prefers that his last rest should be in the rural church yard with his kindred, to finding a bed in the bosom of the deep. The mechanic, too, is smit with the love of farming, and exchanges the dust of the shop for the furrows of the field, the confined air of crowded rooms for the free atmosphere of the heavens, and the noise of machinery for the music of birds.

Nor is this prevailing love of agriculture, which sooner or later in life discovers itself, to be wondered at, whether we consider it as implanted in our nature, or whether it be the result of reason and experience. If it be innate it is merely kept down for a while by the engrossing pursuits of wealth, the calls of ambition, or the strife of glory. But these being satiated or disappointed, the mind set free, returns to its native desire, and applies its remaining energies to their peaceful gratification. But reason and experience may well be allowed their share in bringing so large a portion of mankind ultimately to the cultivation of the earth. Who that values his native dignity and independence would not prefer to be lord of a few acres of land, with nobody's humours to consult but his own, and no body to please but his Maker, to the cringing, the fawning, and lying that are apt to enter so largely into political, professional, mercantile, and mechanical life? If any man on earth can emphatically say—"I ask no favours"—it is the farmer. Skilful and honest labour is all that the earth requires, and it yields a due return—no favours dearly bought with the surrender of independence, of honour, of truth and of all noble and manly feelings; no truckling for office, no fawning for popularity, no lying for gain. No man can say of farming "I have served a faithless master! I have sacrificed honor, and conscience, and independence of mind, and what have I gained?" Among farmers there are no deserted Wolseys, and no Belissarius lives a reproach to agricultural pursuits. The choiristers of the field never sing to deceive, the flowers of the mead never bloom to hide a deformity, and nature never smiles to betray. [*Berkshire Amer.*

HORTICULTURE.

VEGETABLE ORIGIN OF SILK.

The parenchyma of the white mulberry is composed of a tissue of beautiful white fibres of silk, much resembling China silk, which would lead us to the inference that silk is a vegetable, not an animal product, that is to say, that the basis of the material, in its proximate form, is derived from the vegetable kingdom, though the spinning of its substance into a lengthened thread is entirely due to the mechanical functions of the silkworm. The silk tissue of the mulberry becomes very obvious by breaking some decayed twigs of two or three year's growth. [*Gar Mag.*

TEA.

The cultivation of tea is not general throughout the Chinese empire, the northern parts being too cold and the southern parts too warm. The plant is the growth of a particular region called the tea country, viz. Zok-yen, Ho-ping, An-koy, &c. There are some plantations near Canton, but they are few and not extensive. The trees are planted four or five feet asunder, have a very stunted appearance, and are not allowed to grow higher than is convenient for men, women and children to pick the leaves. The gatherings take place from one to four times in each year, according to the age of the plants. The difference in the times of gathering and manner of curing causes the difference of appearance, qualities, and value; the leaves which are gathered earliest in the spring make the strongest and most valuable tea, such as pekoe, souchong, &c.; the inferior, such as congou, bohea, are of the latest gatherings. Green or hyson can be made of any of the gatherings, by a different mode of drying. The first gathering of the leaves begins about the middle of April, and continues to the end of May; the second lasts from midsummer to the end of July; the third takes place in August and September. When the leaves are gathered they are put into wide shallow baskets, placed on shelves in the air or wind, or mild sunshine, from morning till noon: then on a flat cast-iron pan, over a charcoal stove, ten or twelve ounces of the leaves are thrown at a time, stirred quickly with a short hand-broom twice or thrice, and then brushed off again into the baskets, in which they are equally and carefully rubbed between men's hands to roll them; after which they are again put into the pan in larger quantities, over a slow fire, to be dried a second time. When fired enough, the tea is laid on tables, to be drawn or picked over, putting aside all the unsightly or imperfectly dried leaves, in order that the sample may be more even and marketable. To make singlo or hyson, the first two gatherings are chosen, and as soon as picked from the trees are put into the pan; next rolled, and spread thin to separate the leaves which adhere to each other; again well dried, spread, sifted, picked, and fired two or three times more, (especially if damp weather,) before it is in a warehousable state.

The Chinese drink their tea without either milk or sugar; they partake of it plentifully at their meals, and very frequently in the course of the day. For the accommodation of Europeans at Canton, during the business season, milk is hawked about the streets as in towns in Europe, ready meted out in small unglazed earthen pipkins. The milk is drawn from large *breeding sows* kept for the purpose. It is sweeter than the milk of the cow, but few strangers can detect it, unless they are told what it is. Swine are sacred to the Chinese; and as they consider them one of the most valuable gifts of Providence, they, from a religious feeling of gratitude, always keep alive two or three enormous hogs in their places of worship, highly fed and pampered with whatever they will eat, and kept extraordinarily clean by the priests. Our prize swine are shadows compared with them; they are fed by hand for years after they can neither stand, see, or hear. No idea can be formed of their monstrous shape and fatness. When they die, which at last they do from utter helplessness, another is immediately presented to the vacant stall, but how the defunct is disposed of is a secret. The Chinese breed and feed pigs well. Their pork is excellent; they either roast it, to be afterwards cut up and eaten as a stew, soon after it is slaughtered, or *champoed*, as they call it, that is, partly dressed, salted, and dried in the air; the warmth of the climate preventing its keeping long in a fresh state.

China is not an inclosed country, having no convenience of grazing except by the tether, and that but seldom seen. In the southern provinces there are but few horses and oxen, and fewer sheep. The more profitable live stock, of fish, pigs, ducks, and geese, furnish their larders to eat with their rice, which serves them for bread; and numerous canals, which render beasts of draught, wheel carriages, high roads, and even hedges unnecessary, and at the same time yield esculent roots (the water lily) and fish in abundance, and moreover safe and easy conveyance from place to place, reconcile the Chinese nation to the want of costly horses, carriages, and all the other paraphernalia of European luxury.

As agriculturists and gardeners they are indefatigable; the ground intended for rice is broken up when it is very moist, by a very light plough of a peculiar construction, drawn by one or two small oxen. The plough acts like a coulter, cutting off thin slices (not furrows) from the land to the work-side of the field. Night soil is their favourite dress; public yards are formed in towns for its reception, and is afterwards sold in an unadulterated, unmixed state, at a high price. An European sees with astonishment the patient husbandman, with a pail in one hand, and a spatula in the other, smearing the surface of his field with this precious unction!—a task which would be disgusting to the rudest English peasant. Their delicacy is here sacrificed to the profitable effects of the application. Hence the fertility of their fine, rich, alluvial land, yielding sufficient supplies for the immense population, at a charge for cultivation of less than half the value of the produce. How different this from similar circumstances in England, where the cost of the crop but barely balances and often exceeds its value! This it is, viz. low wages, which enables the Chinese to supply the rest of the world with tea, cotton goods, porcelain, &c. on such reasonable terms, and which also prevents the introduction of such manufactures anywhere else. [*Brit. Far. Mag.*

PINE APPLES AND MELONS.

The Horticultural Society of Edinburg have lately awarded a prize to Colonel Patterson's gardener at Cunnoquhie, for some fine fruit of this description produced by means of steam. The pit in which they were raised is contrived in a very ingenious manner to obviate the inconvenience of too rapid changes of temperature, which are sometimes felt when steam is applied in hot houses. In this case the chamber in which the vapour is collected for supplying the bottom heat, instead of being empty, and on that account quickly heated and quickly cooled, is filled with small round stones, which absorb the heat as it is produced, giving it out gradually and retaining it long; producing, by application of the steam for an hour and a half in the evening, an equable heat through the whole of the night and next day. The steam is distributed through this chamber by means of a cast metal tube, perforated at certain distances: and it may also be admitted at pleasure amongst the plants above, by means of tubes with moveable caps communicating with the same receptacle. The idea is, we believe, due to Mr. John Hay, of Edinburg, but Colonel Patterson is the first amateur who has carried it into practice. The beauty of the fruit, and the neatness of the whole apparatus (so different from the usual appearance of melon frames,) seem to point it out as one of the most eligible modes yet discovered for securing to this country the productions of the tropics. [*Fife Herald.*

SUBTERRANEAN HORTICULTURE.

A remarkable instance of tenacious and prolific vegetation in a potato occurred lately at the village of Reading. The Gig Pit there, the property of his grace the Duke of Hamilton, is 35 fathoms in depth. In the latter end of last August, one of the boys who work in it had taken below a quantity of the produce of a neighbouring field. These he carried into one of the levels, nearly two hundred fathoms from the bottom of the shaft: here, by chance, two potatoes fell amongst a small quantity of the slatey clay, called blaze, and in a short time their blanched shoots were noticed about two inches above the surface. Two weeks after their being thus planted, and on the pay-Saturday, they were dug up, when upwards of a dozen full-sized potatoes were found. A like quantity was thus every week for two months the regale of the workmen, who took care to replant the two original parent potatoes every time they had eased them of their produce. [*Scotsman.*

A correspondent of the Springfield Journal says:—"Last summer I transplanted dandelions in June. This spring I have cut them three or four times a week, and must say they are a very superior article for the table—they occupy little room, and require very little attention. I make this statement now, as this is the season for transplanting them, and I know of no better green, nor any thing more profitable for a small portion of a garden—they are planted about six inches apart."

RURAL ECONOMY.

HONEY COMBS.

Wax may be extracted from bee combs, in the following economical manner: Have on the fire an open vessel of boiling water, and, standing by the fire an open vessel of cold water; put the comb, close tied in a canvass bag, into the boiling water, and repeatedly squeeze it down with a stick, or large wooden spoon; the wax will come through the bag and swim on the surface of the water; skim it off, and put it in the vessel of cold water; by repeatedly squeezing the bag, and skimming, every particle of wax will be obtained: when congealed on the cold water, it may be taken off, again melted, and cast into moulds of any convenient shape for sale.

BEST TEMPERATURE OF CHURNING.

The cream should be kept at a moderate temperature in the process of churning. From experiments reported in the Trans. High. Soc. it appears that the degree of thermometrical temperature at which butter can be made, ranges from 45 to 75° Fahrenheit. Experiments agree in showing that the most proper temperature lies between 50 and and 65°; the greatest quantity of butter from a given quantity of cream is obtained at 60°, and the best at 55, just before the butter comes: the heat rises 4° during the operation of churning. At higher heats the butter comes quicker, but the quantity is diminished and the quality is inferior. When the heat is below 50°, it should be brought up to the temperature required by the assistance of hot water.

LADIES' DEPARTMENT.

NUNNERY IN THE UNITED STATES.

Georgetown, D. C. March 13*th*, 1829.

I called, to-day, at the Nunnery or "Monastery of Visitation" in Georgetown. I expressed a wish to the Nun who received me, to view such parts of the interior as strangers are ever allowed to visit.—The Nun smiled assent.

The site of this Monastery is in the northwest part of the town. It stands upon the borders of "the heights," and overlooks the body of the town below.

It commands a pleasant view of the Potomac, as it rolls its still waters away to the southeast, and also the cultivated fields and lawns on its western bank. The enclosure embraces about one acre. On the north side, is the Academy conducted by the Nuns, consisting of a long range of buildings, three stories high. In the middle of the front or eastern side stands the chapel. On the left of the chapel is the room of the Father Confessor, and also the private apartments of the nuns, into which no unhallowed tread of the worldly and profane is ever admitted.

I had not waited long, when the Lady Abbess, and a Nun of the newly initiated to the mysteries of the black veil, about eighteen or twenty years of age, whose countenance seemed the abode of an unusual degree of intelligence, thought and meaning, came into the hall. I was introduced to the Lady Abbess and her young and beautiful attendant. "We will be your conductresses," said the Lady Abbess, at the same time leading the way and inviting me to follow.

The Academy, or High School for Ladies, is the most interesting appendage of the convent. It contains a boarding school of upwards of one hundred pupils—and a free or charity school of a much larger number of day scholars. What strikes the visiter with most pleasure, is the perfect system and order with which every thing is done. All is perfect clock-work. The young Misses who compose the school, are regularly and rigidly trained to do every thing on plan and method.

We first entered a long passage. Here were fixtures prepared for the cloaks, bonnets, &c. of the pupils, each numbered from one to one hundred and fifty; and each pupil has her particular number.—The next room we visited was another long passage, adjoining the dormitories. In this was an extended range of wash stands, reaching through its length. Here the pupils commence their morning toilette.—Each stand is furnished with bowl, pitcher, napkin, soap, combs, brushes &c. and each numbered. The same is true of the beds or couches in the dormitories—of the departments or divisions of their common wardrobe—of their seats in the dining and study halls, and even the depositories of their shoes, &c. Each pupil has the same number throughout the establishment.

The Seminary is divided into four classes. The hall of the first class contains an extensive cabinet of minerals, to which many rare and valuable specimens have been presented by the officers of our Navy, and by Catholics of the Eastern world. It has also many rich specimens of art—the contributions of wealthy and powerful patrons of the church. The sword, sheath and belt of Iturbide, the hero of South America—two of whose daughters are now in this convent, were recently presented to the cabinet by Commodore Rogers.

After visiting the other rooms, my conductresses led me to the domestic apartment, where the culinary operations of this great family are performed. This is kept with great care; every thing was neat, bright and clean; and but for the implements of housewifery, carefully arranged about the room, one might have mistaken it for a drawing room.

One feature in the training of these young ladies I was wonderfully pleased with. It is this: two of them are taken every week by rotation, and placed in this parlor-kitchen, where under the instruction of one of the sisterhood, they perform all the operations of housewifery, for the week. They make the bread and bake it, the puddings, tarts, pies, cakes, &c. They roast the beef and fowls, and in short, perform the whole labor of house-keeping, except the drudgery. At the end of the week they return to their study, and two others take their places.—This is as it should be. Domestic education is almost wholly overlooked with us. Young ladies are trained up, as if to charm, and please, and grace the drawing room, were to be the sole business of their lives. They are taught to sing, dance, (this is indispensable!) to play the piano and guitar, to read bad French, and write worse English, to trifle gracefully (all of which I acknowledge I like very well, if backed by *solid* attainments,) and now and then one, to think profoundly; but not one in ten on arriving at the proper age for taking charge of a family, knows how to make a pudding or a pie, that would be eatable, unless she were to make it "by books."

The number of Nuns in this Convent, at present, is about sixty. Among them are descendants of several rich and powerful families. Their employment consists in confessions, vigils, fasts, penances, reading and religious exercises, in teaching, in domestic concerns, and in making fine needle-work for sale. The Charity School embraces about two hundred day pupils. For their humanity and benevolence in collecting and teaching these children, the Nuns deserve praise. In these employments they appeared happy, but the happiness of these devotees, if real, must be of the negative kind.

In one respect I was much disappointed. Instead of finding in the Convent, a set of rigid, sour, austere female ascetics, I met with cheerfulness approaching to vivacity—with kindness the most engaging; and with politeness the most natural and unaffected.

THE VIRGIN'S GRAVE.

Nought could be heard, save the whippoorwill's cry;
The deep shades of night were gathering fast,
Yet I saw by the moon's gentle light, I was nigh
To the spot, which to mem'ry recalled the past.
'Twas but a simple and newly raised mound,
By poverty's hand, reared up in the wild,
Where heart-broken friends had collected around,
To bury the form of misfortune's child.
No tablet of stone or monument proud,
Was raised o'er the sod of the virgin's grave,
No epitaph spoke in such language loud,
As graces the marbled tomb of the brave.
Too oft is it thus, with virtue and worth;
In life,—'tis despised, unnoticed, neglected;
In death—its clay tenement placed in the earth,
As unfit for the world, and therefore rejected.
But Laura! thy worth shall not be neglected,
I will try if I can thy epitaph write;
And in the dark wild, shall a tomb be erected,
Which will the kind pity of strangers invite.

EPITAPH.

Stranger, if e'er a child of thine,
  Is held by memory dear,
Let but this simple single line
  Press thee to drop a tear.

If poverty has been thy lot,
  And death perchance is near;
Oh! shed upon this hallowed spot,
  One single pitying tear.

The tear that's shed o'er virtue's grave,
  Like bread cast on the sea,
Repaid with interest you shall have,
  In tears shed over thee.

Petrarch, Jr.

SPORTING OLIO.

Long Island (New York) Races.

The second week's races over the Union course, (L. Island) commenced on Wednesday, (27th May,) having been postponed the previous day, owing to the rain—when Ariel and Betsy Ransom again contended for the four mile purse, and with like result as before, Betsy Ransom taking it in two heats, easily. Time of the first heat, 7 minutes 52 seconds; of the second, 8 minutes 1 second.

On Thursday *Splendid* walked over the course for the purse of $400—his intended competitor, Sir Charles, having fallen sick. On Friday many horses were entered.

Dutchess County (New York) Races.

The races over the Dutchess county course, near the village of Poughkeepsie, commenced last Tuesday with the four mile heats, for a purse of five hundred dollars. The only competitors for the prize were *Betsy Ransom* and *Ariel*. Three heats were run. The first was taken by Betsy—the second and third by Ariel, amidst the cheerings of thousands of spectators. The time of running the heats we have not yet learned. It will be recollected that at the late races over the Union course on Long Island, in two different trials of speed, Betsy Ransom beat Ariel. The latter has now in turn become the victor.

Tree Hill (Virginia) Races.

Third day.—Jockey Club Purse, four mile heats, $1000.

J. M. Selden's b. h. Waxey, by Sir Archie,	1	1
Wm. R. Johnson's b. m. Slender, by Sir Charles,	2	dr.

Time—8 m. 22s.

A sweepstake for 3 year old colts—mile heats.

Wm. Finney's s. h. by Sir Charles,		2	1	1
O. P. Hare's s. h.	do.	3	2	2
J. M. Selden's b. h.	do.	1	3	dr.

Time—First heat, 1 m. 57 s.; second do. 1 m. 58 s.; third heat, 2 m. 1 s.

IMPOSTURE DETECTED.

[The following letter from Mr. Sherly establishes the fact, that the certificate published in the American Farmer on the 8th May, (No. 8, Vol. 11,) relative to the horse called Eclipse, was an imposition. But we will let Mr. Sherly speak for himself:]

J. S. Skinner, Esq.

Sir,—In your paper of the 8th of May I saw my name to a certificate relative to a horse named Eclipse, and in answer to your inquiry, can with propriety say, the certificate alluded to has been altered to suit some impostor's own purposes—in its present form it only contains four facts: the balance are all false. Those four facts I will repeat: he was by the imported Eagle, his dam was a Bedford mare, he never was beaten, and is blind. I ran him one race at the Milton course, N. C. against Mr. Joseph Megehee's mare. That race he won, and that was the only one he ever ran.—He was got during the time Eagle was in my possession, and foaled my property in the spring of 1819, south of James river, and was never north of it, where all those races were said to have been won by Eclipse. His owner is a bad calculator—as I know, that some of those famous horses that contended so hard with this horse Eclipse were taken off the turf at least ten years before he was foaled. He was brought to Kentucky in the fall of 1824, and in the fall of 1825 I traded him to a very respectable gentleman in Lexington, not to the framer of the present certificate.

Lewis Sherly.

Louisville, Ky., May 30, 1829.

The pedestrian whose feat we noticed a few days ago, performed, yesterday afternoon, another of still more surprising activity. By public notice, he was in 75 minutes to take up 100 corn cobs each, placed a yard's distance from the other, and all with his teeth, and drop them from his mouth successively, in a basket placed at the point from whence he originally started. The actual space travelled is computed to be above 5¾ miles; but the superadded exertion of stooping down to take up the cobs it is supposed makes it about seven miles in point of exertions. He succeeded in 45 minutes 15 seconds.

[*Charleston Gazette.*

MISCELLANEOUS.

POST OFFICE DEPARTMENT.

[Next to the pleasures of personal and social intercourse, and the means which they offer of a more thorough interchange of sentiment, and a more perfect transaction of business between man and man, the substitute for them which is afforded by means of *epistolary correspondence through the mail,* is the most gratifying and the most complete. As a medium for effecting negotiations, commercial and national, it is invaluable; and after the agency of the *press,* it furnishes the quickest and most powerful instrument for the diffusion of knowledge.

So sensible is every one of the vast advantages of secure and rapid correspondence by mail, that the taxes necessary to guarantee them, and which happily fall with exact justice on those only who are benefitted, will always be cheerfully borne; whilst the interest felt in the administration of the Department entrusted with this branch of public service is so universal that none of its acts can be regarded with indifference.

From the first establishment of the conveniences of communication *by mail,* regular in its movements, and guarded by law, to the present time, there has been a constant tendency, to push its operations to an extent, and through a number of ramifications, *beyond the means of self-support.* In the interior, almost every man would have an office at his door, or at least nearer than an honourable Senator from North Carolina would have the domicil of his neighbour;—within the smoke of his chimney; and no squatter on the remotest frontier but would have the Department penetrate the trackless wilderness to drop a newspaper at the door of his solitary hut. The desire is natural, and its gratification to the full would be salutary to the mental, as is the light of the sun to the vegetable world; but the means arising from productive mail routes, do not admit of this infinite extension to routes which are otherwise; and hence the necessity, on the part of the Postmaster General of constantly comparing *his means with his objects;* and as the former consist altogether in *small fractions,* he cannot too rigidly enforce the collection even of *cents*—His resources are in fact made up of them, and in comparison with that Department none under the government, has so much necessity to bear always in mind the injunction of poor Richard—"Take care of the *pence,* the *pounds* will take care of themselves."

Every deputy of the Postmaster General, who has at heart the efficiency and prosperity of the Department, should keep the fact constantly in view, that the loss to it of every five-penny-bit, has a tendency to contract the sphere of its usefulness, and to create the necessity for a higher rate of postage. To guard against these results, that *esprit du carps,* which is supposed to animate all who work in the same vineyard, will prompt them to use their utmost vigilance.

High as is already the character of the Department for responsibility in its *employés,* efficiency in its operations, and fidelity in the pursuit of the great national ends for which it was instituted; yet no system of human invention can be so perfectly well organized as to admit of no further improvement, or preclude all danger of relapsing into carelesness. Perfect, indeed, beyond mortal invention, would be the guards and contrivances that could keep a machine so vast and so complicated from contracting rust in some of its parts; and the great duty and utmost power of the Head of the Department, will always be to order such repairs, and to contrive such improvements as may be practicable and necessary to defray the expenses and extend the utility of this great establishment.

It is in this spirit, and with this obvious view, that its present chief, a man of a liberal nature, a jurist of eminent talents, and a statesman of established character, has issued the following circular. Its object is rigidly to enforce, not to modify nor add to existing laws. Persuaded, as we are, that every farmer reads, with concern, what relates to the Post Office Department, we willingly contribute to its circulation, by sending it in the columns of the American Farmer, through every state and territory in the union.

CIRCULAR.

General Post Office Department,
Washington, 18*th May,* 1829.

To the Postmaster at ——

Sir,—The multiplication of mail routes, and the great increase of accommodation on many of the old routes within the last year, involve an expense considerably beyond the current revenue of the Department. This revenue, arising exclusively from postages, it is hoped will be sufficiently augmented to cover the deficit, if the Post Office law shall be strictly observed, and all its provisions rigidly enforced. On entering upon the duties of the Department, it is a subject of no little regret to observe, that much loss is sustained by an abuse of the franking privilege. It might be presumed that the high character of officers entitled to this privilege, would be a guarantee for its restriction within the limits of the law; but it is much to be lamented for the honour of our country, no less than for the prosperity of the Department, that such has not always been the case. Letters to others are frequently enclosed to persons who are entitled to the privilege of franking, and letters written by others are often sent under their frank, in opposition to the express letter of the law. There is cause to apprehend that Postmasters have, in some instances, been guilty of this fraud upon the revenue. This evil, unless it shall find a remedy in the vigilant and energetic co-operation of Postmasters with the head of the Department, must tend to paralyze all its operations. It is therefore expected that you will watch, with the utmost care, against this unlawful practice; and whenever you have cause for suspicion, use all lawful means to obtain evidence against the offender. Let no effort be remitted, let no dignity of station deter you; but however exalted may be the rank of the officer who shall violate the law in the abuse of his franking privilege, never fail to enforce the penalty by legal process, and report each case to the Department. In all lawful efforts to carry into effect the provisions of the law against such as shall incur its penalties, you will be sustained by the Department; but no Postmaster can expect to retain the confidence of the Department, who shall wantonly violate his franking privilege, or who knowingly shall suffer it in others with impunity.

In many instances Postmasters have injured the revenue by extending their privilege beyond the weight prescribed by law. Whenever a letter to or from a Postmaster exceeds half an ounce in weight, the Postmaster receiving or delivering it, is bound by the law, and by his oath, to account for the excess. In every instance that shall come to your knowledge, of a Postmaster mailing a letter free, with the frank of a Postmaster, or receiving one free, in virtue of his privilege, which shall weigh more than half an ounce, you are to report the fact to the Department, that the remedy may be promptly applied.

Many persons appear to be under the erroneous impression, that printed sheets of paper are not chargeable with letter postage; you will use diligence to correct this error. *Every thing that goes in the mail is chargeable with letter postage, except newspapers, pamphlets, and legislative journals, which are rated as pamphlets.* Proposals for publications, printed circulars, special advertisements, and, indeed, every species of handbills, are to be charged with letter postage. Whenever such printed articles come to your office, without being entered on the post bills, and rated with letter postage, it is expected that you will correct the error, and report to the Department the Postmaster who mailed them. Numbers of handbills, printed proposals, and special advertisements, have sometimes been sent to Postmasters to be received and circulated under their privilege. Every such case is required to be reported to the Department, that such Postmaster may be deprived of the means of repeating the abuse. In some instances these articles have been headed with the name of the office of an editor, and called an extra newspaper, with the evident design of reducing the postage. Such design it is your duty to counteract. *A supplement always accompanies the newspaper to which it belongs, as a part of the same paper, and an extra newspaper is a sheet, or a part of a sheet, issued between the regular times of publishing the paper, for the purpose of an earlier annunciation of interesting news. You will not send nor deliver printed sheets or bills of any other character, as supplements or as extra newspapers.*—There has also been a want of sufficient care in rating letters. Many double, some triple, and even quadruple letters are rated as single. If a letter encloses a bank note, it is double; if it encloses three bank notes, it is quadruple, and should be rated accordingly. It may sometimes be difficult to determine the proper rate; but if the letter has the appearance of being double, you will be careful to mark it as such; and if the person receiving it shall question its correctness, he can open it in the presence of the Postmaster or his Assistant. The want of proper attention to these several points, has been highly injurious to the Department. Each case may seem a little matter, scarcely worthy of regard; but it should be remembered that the whole revenue of the Department is made up of these little items, and it is their combination that gives life and energy to the whole machine. It is at all times the duty of Postmasters to adhere strictly to both the letter and spirit of the law, and especially at this crisis, when the current engagements of the Department already entered into greatly exceed the amount of its ordinary revenue.

W. T. Barry.

Extract from instructions to Postmasters, issued in 1820, and repeated from that day to this:—

"*Every article* sent in the mail which is not either a *newspaper, magazine* or *pamphlet,* is subject to letter postage, whether it be a printed or written communication." By the act of March 1825, "the journals of the Legislatures of the several states, not being bound, shall be liable to the same postage as pamphlets."

And the instruction of March 11, 1828, *runs thus:*—

"*Every article* sent in the mail, which is not either a newspaper, magazine, pamphlet, or legislative journal, is subject to *letter postage,* whether it be a printed or written communication, except a written or printed notice from a publisher of a newspaper to his subscriber, stating the subscription due, which must be attached to the margin of a newspaper, and postage charged for it as for a newspaper.

The words newspaper, magazine, and pamphlet, are to be taken in their common acceptation; that is, a newspaper is a printed paper, giving an account of political and other occurrences, published in numbers, once a week, or oftener, and regularly. If a paper of that description is not published at regular successive times, it must be considered as a handbill, and subject to letter postage. But an extra sheet, published by a regular printer of a news paper, which purports to be a supplement, is to be considered as a newspaper.

Magazines, Pamphlets and Legislative Journals.—*Sect* 13, 30:—These words are to be taken in their common meaning; that is, a magazine is a monthly pamphlet containing articles on science, politics, news, &c; a pamphlet is a small unbound book, consisting of one or more sheets. All kinds of advertisements, printed or written, and all articles sent by mail which do not come within the description of a newspaper, magazine, pamphlet, or legislative journal, are to be charged with letter postage.

Magazines and pamphlets, published annually, or more frequently, at regular periods, are rated by the sheet, as periodical.—Sect 30.

Carried not over 100 miles, a sheet,	1½ cts.
Do. over 100 miles,	2½

Every printed pamphlet or magazine which contains more than twenty-four pages, on a royal sheet, or any sheet of less dimensions, must be charged by the sheet, and small pamphlets printed on a half or quarter sheet of royal or less size, shall be subject to half the amount of postage charged on a full sheet.—See 5th Sect. law of 1827. Any additional pages over a sheet are to be charged as a full sheet.

Magazines and pamphlets which are not published periodically, are to be charged for 100 miles or less, 4 cents on each sheet; over 100 miles 6 cents.

The distance on which the rates of postage are chargeable, are those on the road or route by which the mail actually passes; that is, the post-road, and not the shortest cut by which a traveller could pass from one place to another.

Some roads form a circuit; that is, the mail starts from one office, and after passing by several offices, arrives at the place from whence it started, without returning by the same route. In this case, the postage is to be rated according to the shortest distance on the post road between the two places. Thus, in New Jersey, there is a circuitous route from Trenton, by Allentown, Shrewsbury, &c. to New Brunswick, and thence by Somerset c. h. and Flemington to Trenton: from Trenton by the route on which the mail is carried to Flemington, is 131 miles, and the postage by that distance would be 12½ cents; but the actual distance from Flemington to Trenton, is only 23 miles, and the postage of a letter sent either way would be only 6 cents.

THE FARMER.

BALTIMORE, FRIDAY, JUNE 12, 1829.

☞ [AS IT SHOULD BE.—If they knew how important it would be to us at this time, we feel persuaded that those indebted to us would all meet our claims on them, in the spirit evinced by the writer from whose letter we make the following extract. We earnestly assure them, that we were never more in need of that for which they have received our time, our labour, and our money.]

Extract.—"*Charleston, S. C. June 3*, 1829.

"For the amount of your bill now remitted, you will please send a receipt at your convenience.—Instead of regarding your present application as in any way importunate—I cannot but feel and must candidly acknowledge, that I have been very remiss in permitting my subscription to remain so long unpaid; and should I again through inadvertence become a defaulter, I beg that you will not hesitate to call on me."

[And here let me repeat, that no one need wait for a private opportunity, or the *call* of an agent.—The simplest and safest way, and the one most acceptable to me, is to have the *current* money where the subscriber resides, sent *by mail*, at my risk.

JOHN S. SKINNER, *Editor*.]

☞ A few years ago we obtained a small quantity of barley from the Mediterranean, and sent a few grains of it to a respectable planter in Alabama. The following extract of a letter from that gentleman will show the result. "I have got four acres in barley from the Mediterranean, that Mr. Skinner sent me three years ago. My stock was about forty grains, It is a spring barley, but will stand a mild winter, and is certainly the heaviest I ever saw."

☞ On Thursday afternoon, (2d inst.) the Steam frigate Robert Fulton, lying at the Navy yard at Brooklyn, opposite New York, was blown up, by some accidental communication of fire to the powder magazine, and twenty-six persons killed, and twenty-two wounded; among the latter was Lieut. Breckenridge, who died the same evening; two of the wounded marines also died the same evening. There were also two of the crew missing, who are supposed to have been killed and their bodies lost in the river.

☞ THE CROPS.—Extract from a letter received this day from Queen Ann's County, Eastern Shore, Maryland. The crops of early wheat will be cut in all next week; from present appearances it will not be very abundant; there is much scab, and we have our fears that it may be injured by the rust.

(From the Boston Centinel.)

☞ HARVARD UNIVERSITY.—The Inauguration of the Hon. JOSIAH QUINCY, LL. D. as President of Harvard University, took place yesterday in the Meeting House at Cambridge. The house was crowded. We never remember to have seen a more numerous collection of ladies and gentlemen. There was not the indiscrimate crowd incidental to a commencement, but there was something far more satisfactory to every lover of learning, and well-wisher of our College. There was a general congress of the *Literati*, from far and near. The performances were, a prayer by the Rev. Dr. PORTER, an address and induction in Latin by His Excellency Governor LINCOLN, a reply in Latin by President QUINCY, a Latin oration by CHARLES S. STORROW of the Senior class, an oration in English by WM. NEWELL, A. M., the inaugural discourse by THE PRESIDENT, and concluding prayer by the Rev. Dr. WARE, together with appropriate music. All these performances were able and peculiarly adapted to the occasion. After these, a sumptuous dinner was provided in Commons Hall for the constituted authorities, masters of arts, and invited guests. In the evening, the doors of the President were thrown open for the exchange of congratulations of his friends, and the friends of the University. After this, the College buildings were illuminated throughout, affording one of the most brilliant spectacles imaginable: the effect was such as to baffle description.

A letter from Plymouth, Eng. dated May 2d, to a respectable house in this city, says—"The Wheat market is rather better, but not much advanced; yet many persons think, that as the stocks are so light, a considerable rise must take place before harvest, which, owing to the cold season is likely to be late.

BALTIMORE MARKET.—There is no change whatever in Howard street flour, the wagon price still remaining at $6.12½, and the store price $6.25 a 6.37½. *Live Stock*.—We have heard of but two sales of beef worthy of notice; a lot of fifty head of as fine cattle as have been in market this year, was sold by Col. Bealle, of Virginia, at $5.87½ a 6.25. Another lot of forty-seven head, sold at $5.50 a $6.

LATEST FOREIGN NEWS.

By the ship Mentor from Liverpool, and the Henri IV. from Havre, London dates to the 8th, and Paris to the 3d May, have been received at New York.

The Liverpool Chronicle states that the importers and dealers in Tobacco, are again up in arms in consequence of permission having been given to the Irish planters to have another year's growth free of duty.

LONDON, May 8.—The riots in the manufacturing districts, have produced the consequences that were to be apprehended. Blood was shed.—Five men have been killed at Rochdale, and about twenty-five wounded. For some time past, there had been much discontent on the part of the persons employed in the woollen and flannel manufacture against some of the masters who pay lower wages than others. The workmen destroyed the looms and shuttles, &c. so that persons inclined to work would be unable. A riot ensued. The military were called out. Twenty-three of the rioters were arrested, and sixteen of them were committed to Lancaster. A large mob assembled before the prison for the purpose of liberating them. They attacked the soldiers with stones and wounded one of them. A party of cavalry arrived, who fired on the mob, killed five, and wounded twenty-five.

SILK TRADE.—In the British House of Commons on the 2d, a motion was made to finally postpone the Silk Trade Bill, which motion was lost and the bill ordered to be further considered on the 4th.

Accounts from Egina of the 10th March, stated that war continued in Western Greece, where Count Aug. Capo d'Istria was engaged in inspecting the two armies. The powers entrusted to him excited great discontents among the chiefs, and it is said that this has induced Prince Ypsilanti to send in his resignation. The *palicari* were in want of every thing, and the President sailed on the 2d March in the Russian frigate Helen, carrying with him specie enough to pay them for two months. He anticipated that no arrangement would take place between the Porte and the European powers as to the independence and limits of Greece, until the former was compelled to yield by necessity. The Greeks had taken the fort Lithada, situated at the entrance of the Mabriaque Gulf, which capitulated after an assault on the 20th Feb. which lasted during the whole day.

All the efforts to bring about an armistice between the Greeks and Turks in the Island of Candia, (an armistice which was the first object of the treaty of July 6th) have failed. The Greeks continue to devastate the country. The war has not been suspended for one moment.

The Catholics of Syra have petitioned the Pope to use his intercession with the allied Powers to permit them to return under the government of their legitimate sovereign, the Sultan. The cause of this is said to be vexations they have experienced from schismatic Greeks.

There is a rumour in the Constitutionel, from Vienna, by a private letter, that by advices from Constadt, the Russians had gained a victory on the borders of Silistria. The Turks, whose force was strong, fought bravely, but were defeated with the loss of 18 piecea artillery, a quantity of ammunition and provisions and 1200 prisoners, among whom were several Agas and Ulemas.

Letters from the frontiers of Wallachia, of April 13th, mention some successes to have been gained by the garrison of Giurgevo on the 5th, and allude to a movement of head quarters to Krajova, with a view to uleterior oprations against Servia. The Russians, however, must first dispose of the Turkish army near Widdin, and reduce the fortress.

LONDON MARKET, *May* 8.—Tobacco; the demand is moderate, without any alteration in prices. American Rice maintains former quotations.

LIVERPOOL, *May* 9.—The import of Cotton, this week, is 15,495 bags—sales, 11,940 bags, including 5,460 Boweds, at 5d to 6d; 1780 Orleans, 5d to 7½d, 1150 Alabamas, 4½d to 6d; and 100 Sea Islands.

Amercan Flour, Indian Corn, Peas and Beans, are a shade higher, and in rather better demand. Am. sweet Flour, 37 to 38s. Indian Corn, 31 to 35. The aggregate average of the 6 weeks made up at London on the 7th, was Wheat 69s. 10d. Duty, 15s. 8d.

Corn Exchange.—The transactions in wheat moderately extensive, and on all descriptions a rise of full 2d per 70 lbs. on our quotations.

London Corn Exchange, May 8.—The supplies of grain this week are moderate, except of oats, the quantity of which is again good. The finest parcels of wheat being scarce, the factors are endeavouring to obtain more money for such, but with little success, so that the trade may be reported the same as on Monday. Barley is rather dearer. Beans and Peas are unaltered. Oats meet a slack sale at the terms of Monday, cash. The arrival of flour is good, and there is no alteration in this trade.

City Markets, 2 *o'clock.*—The extensive sales of Cotton yesterday attracted much attention. The stocks of cotton in the port of London are generally larger than at this period last year. The total stocks at the beginning of the month were above 90,000 bales, against 80,000 at the corresponding period last year; of the 12,000 Surats offered yesterday, 3,000 only were sold at 3¼ to 3½; 5,000 were withdrawn, and 4,000 bought in at 3 5-8; 1850 Orleans, 1000 withdrawn, 850 sold at 5 1-8.

Extract of a letter from Liverpool, May 9.

"In consequence of the disturbed state of the manufacturing districts, the cotton brokers state a decline in this week of 1-8d, and they now quote Upland at 4 7-8d. *a* 6¼d; Alabama, at 4¾ *a* 6 1-8d.; New Orleans, at 5d *a* 7½d per lb.

"Contrary to general expectation, the averages of grain, and consequently the duties, remain for the ensuing week unaltered:—On Wheat, 13s. 8d.; Indian Corn, 13s. 10d. per qr.; and Flour, 8s. 3d. per bbl..—We have now very fine weather, and the quotations of 38s. *a* 39s. for Flour, duty paid, and 32s. *a* 33s. per bbl. in bond, are entirely nominal."

Sales at Havre, May 1.—900 bales Georgia Cotton, 80 *a* 83c; 703 do New Orleans Cotton, 93c *a* 1f; 100 hhds. B. Sugar, free, 68f.50c; 65 tierces Rice, 25f; 700 bags St. Domingo Coffee, in bond, 45c.

Prices Current in Boston, June 5.

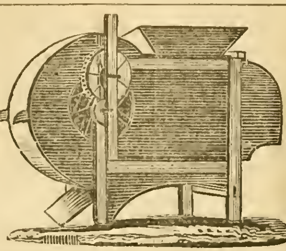
Apples, best, bbl. $.3.00 a 5.00. *Beans,* white, bushel 1.00 a 1.37. *Beef,* mess, bbl. 10.25 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 8.00 a 8.50. *Butter,* inspected, No. 1, new, lb. .14 a .16. *Cheese,* new milk, .7 a .9; skimmed milk, 2. a .3. *Flour,* Baltimore Howard-st. 7.00 a 7.12; Genesee, 7.00 a 7.50; Rye, best, —. *Grain,* Corn, bush. .56 a 60; Rye, .70 a .80; Barley .67; Oats .40 a .42. *Hogs'-Lard,* 1st sort, new, lb. .9. *Pork,* clear, bbl. 16.00 a 16.50; Navy, mess, 13.00 a 13.50; Cargo, No. 1, 13.00 a 13.25. *Seeds,* Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel 1.50. *Wool,* Merino, full blood, washed, .30 a .37; do. do. unwashed, .20 a .23; do. three-fourths washed, .25 *a* .30, do. half and quarter washed, .22 a .24; Native, washed .20 a .22; Pulled, Lambs', 1st sort, .35 a 37; do. 2d sort, .22 a .25; do. spinning, 1st sort, 27 a .30.

Prices Current in New York, June 6.

Bees-wax, yellow .23 a .24. *Cotton,* New Orleans .10 a .12; Upland, .8¾ a .10½; Alabama, 9 a 11. *Cotton Bagging,* Hemp .19 a .21; Flax .15 a .18. *Flax,* American .8 a .9. *Flaxseed,* rough, tierce ——; clean ——. *Flour,* N. York, bbl. 6.75 a ——; Canal 6.87 a 7.12½; Baltimore Howard st. 7.87½ a 7.00; Richmond city mills, –; country, 6.62½; Alexandria, 6.75 a ——; Fredericksburg 6.26¼; Petersburg, 6.75; Rye Flour, 4.00 a ——; Indian Meal, per bbl. 2.50; per hhd. 13.00 a 13.25. *Grain,* Wheat, Virginia —— a ——; N Carolina 1.40 a ——; Rye, North, .71 a. 73; Corn, Yellow, North, .55 a .56; Barley, 55; Oats, South and North, 33 a .40; Peas, white, dry 7 bu. —— Beans, 7 bu. 8 00 a 8.50. *Provisions,* Beef, mess 10.00 a 10.50; prime 7.75 a 8.25; cargo 6.00. Butter, N. York, —– a —; shipping, .8 a .11; Lard, .5 a .6; Pork, mess 12.50 a 12.87½; prime 9.75 a 10.00, cargo 9.00 a ——; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* .2½ a .3. *Tobacco,* Virginia .3½ a .5½ a .6½; Kentucky, .3¼ a 5½ a .6½. *Wool,* Merino, American fleece, .32 a .38; Pulled, .32 a .35; common, .18 a .25; Pulled, spinning, .18 a .33.

Prices Current in Philadelphia, June 9.

Bees-wax, yellow .23 a .24; *Beans,* bushel $1.25 a ——; *Beef,* mess 10 a 11, prime 9 a 9.50, cargo 7; *Butter,* No 1, .8 a .8½, No. 2, .5 a .6; *Cotton,* New Orleans .11 a .13, Upland .9 a .10½, Tennessee .9 a .10½, Alabama .9 a 10½; *Feathers,* South. .32 a .33, West. .31 a .32; *Flax* .7½ a .8. *Flour,* super. 6.62; fine 6.25; Rye 3.00 a 4.00; Cornmeal, hds. 11.50 a ——, bls. 2.25 a ——; *Flaxseed,* cask —— a ——; bu. 1.35; *Grain,* Wheat 1.35 a 1.45; Rye .60 a.65, Corn l. c. white, .44 a .45, l. c. yellow, .47 a .48, u. c. round, .50 a .52; Oats .30 a .40, Barley, Pa. .— a .—; do. Eastern, .60; black-eyed Peas .40 a .50. *Hams,* Jersey .9 a .11, Virginia .10 a .12, Western 9; *Hemp,* 210; *Lard,* .5 a .8; *Oil,* linseed, .80; *Pork,* mess, 13.00 a 13.25, prime 11.50 a 12, cargo 10.00 a 10.25; *Rice,* 2.75 a 3.25; *Tobacco,* Kentucky .4 a .7, Virginia .4½ a .7; *Wool,* common washed lb. .28 a .30, half blood .30 a .33, three quarters blood .33 a .35, full blood .36 a .40; unwashed, generally 10 cents less, according to quality.



FURTHER IMPROVEMENTS IN THE WHEAT FAN INTRODUCED.

From the excellent character the subscribers have heard, for some time, of the mode of communicating the motion to the shoe of the fan, used in some parts of Pennsylvania, they determined to have a set of patterns made, and are now building some fans on that plan; its regular and easy motion promises durability to the machine and ease to the workmen.

Within the periphery of the cog wheel, are a set of bevel cogs, which work into a bevel pinion on the end of an iron rod, which passes along the side of the fan, and connects, by means of a crank, to the shoe—by this fixture, more or less shake can be given to the riddles at pleasure.

SINCLAIR & MOORE,
June 4, 1829. Pratt-st. wharf, Baltimore.

GREEN HOUSE PLANTS.

Orders for Green-House Plants from the magnificent collection of Messrs D. & C. Landreth, Philadelphia, received by the subscriber.

The plants are cultivated in pots, which therefore, admits of transporting at the present season with perfect safety. All orders will be carefully attended to,—packed in boxes and received by the steam-boat line.

The collection of the Messrs. Landreth's is not surpassed by any in the Union, and comprise the most beautiful, both native and exotic. None are sold by them unless in perfect health, and the prices at which they are offered very reasonable. Catalogues may be had *gratis* on application (in a few days.)

Also, a constant supply of the Messrs. Landreth's GARDEN SEEDS, grown and warranted by them.

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ALMANAC.

1829. June.	Sun. Rises.	Sun. Sets.	Length of days.	Moon Sets.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 13	4 37	7 23	14 46	2 9
Sunday,........ 14	4 37	7 23	14 46	2 46
Monday,....... 15	4 37	7 23	14 46	3 27
Tuesday,...... 16	4 37	7 23	14 46	4 14
Wednesday,.. 17	4 37	7 23	14 46	rises.
Thursday,..... 18	4 37	7 23	14 46	8 39
Friday,......... 19	4 37	7 23	14 46	9 26

Full Moon, 17th, 1 h. 3 m. Morn.

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AGRICULTURE.

A NEW TREATISE UPON WOOL AND SHEEP.

Translated from the French for the American Farmer.

(Continued from page 90.)

Section 3.

Affinities of the properties of Wool between themselves.

Our readers must recollect what we have said in the *introduction* of this work, that a minute examination of wool obliges us to have recourse to definitions and developments which must seem to be abstract, and the immediate application of which it is difficult to understand. We beg them then to give serious attention to this third section. In the former, we have defined and explained the properties of wool; we are examining now the various affinities or relations of these properties to themselves. The knowledge of them is not without its importance in practice; for it is certain, for example, that if, to be eminently fit to the manufacture of the finest cloth, wool ought to be fine, equal, supple, &c.; and if the presence of one of these qualities indicates the presence of many others equally desirable, and whose affinities with them are already known, the examination of wool becomes then more rapid and certain.

The fineness of the fibre is connected with its *nature* (*caractère*,) its *suppleness* (*souplesse*,) its *strength* (*force*,) properly so called, its *softness* (*douceur*,) its *length*, (*longueur*,) and its *different elastic properties*, (*différentes vertus élastiques*.)

Affinity of fineness with the nature of the fibre.

The affinity of the fineness of the fibre with its *nature*, or the configuration of its tube, seems to us to be so proved as that we do not fear to affirm its existence. Our practice does not permit us to have any doubt on that subject. Thus the *regular frizzled* (*frisé régulier*) is generally followed by *fineness*. It may be also found, it is true, in the wools almost glossy (*lisses*,) and we have seen some flocks, the fleece of which united those two circumstances in a remarkable degree. But the rarity of such a sort of wool ought to cause us to consider it, almost as an exception, and besides it is constantly in the frizzle we have found the greatest *fineness*.

Some English and German observers have throughly examined wool in the particular in which we are engaged, and they have carried this examination so far as to establish a real system. According to them, the fineness of the fibre has a direct affinity with the number and form of its undulations, the glossy wool, nevertheless, being excepted as we have just said, and as it has been granted by them. They find, 1st, that the number of the small segments of a circle of which the frizzled is composed varies in the length of an inch, proportionably to fineness, and to unformity of that fineness in every part of the fibre, from eight to thirty-six and even more;—2d, that in the same number of those segments that fibre will be the finest, the undulations of which will be more small, vertical, regular, and that maintains a more direct line;—3d, the fibre, the most uniformly fine in its length, will be that the undulations of which will be found in all the desirable regularity from one of its extremities to the other.

Those observations have served to us very important. We applied ourselves to careful examinations on that subject. We find indeed some exceptions to the principles that we have just mentioned, but so few, that we cannot have any doubt about the truth of those principles.

Agreement or Affinity between Fineness and Suppleness.

The fineness of the fibre in a direct relation to suppleness, the quality so precious in wool. We may easily conceive it, as one may conceive that a pack thread is more flexible than a cord. Exceptions may, however, be found to the general rule, that *suppleness accompanies fineness*. They may result from an overture more or less large of a tube of equal diameter, or from the composition of the substance of the fibre itself, which may be more or less soft or more or less hard.

Relation between Fineness and Strength, properly speaking.

The connections between the fineness of the fibre and its strength, strictly speaking, are difficult to be established; yet their existence will not be questioned. It is certain that, according to the law which governs bodies generally, the strength of the fibre would be in an inverse proportion to its fineness, if one could suppose all other conditions or circumstances equal; but this supposition is not admissible. We have it contended that very fine wool being less strong, precisely in proportion to its greater fineness, it would be easy to attach too much importance to that quality. This opinion appears to us to be altogether erroneous: for, without enumerating the remarkable advantages which fineness presents in all other respects, it is yet easy to shew that this difference in strength of the *isolated* fibre, disappears under the operations of spinning into threads and in the manufacture, (*cordage et de la filature*,) and even in the case of two threads of equal diameter, that which will offer the greatest resistance, in other words the stronger, will be that which is composed of fibres of the finest wool. That is explained by the effect of suppleness, the intimate connection of which with fineness we will establish. Suppose, in a word, a body deprived of the first of these qualities, its *strength properly speaking*, such as we understand in regard to wool, will consist only in the degree of adherence between those of the molecules which compose it.

This power of adherence once vanquished, the body is broken; but if, besides this degree of adherence, each one of these molecules is supple or elastic, that is to say, susceptible of extension, the effort which is required to separate them will have not only to overcome their strength of cohesion, but also to exhaust their susceptibility of extension.

Affinity or Relation of Fineness with Softness.

Fineness has an affinity to softness, because that wool the most fine is habitually the most supple, and that, between suppleness and softness, there is a certain connection—but to judge well of this softness, it is necessary that the wool be submitted to the operations of washing, and of being deprived of its grease (*dégraissage*,) for one readily conceives that the two kinds of grease which environ the fibre may, in retaining foreign matter, modify its exterior form, and above all its gloss or polish.

Affinity between Fineness and Length.

The agreement between the length of the fibre and its fineness, appears to us sufficiently established in this respect, that the greater degree of this latter quality is found to exist, most generally with a middling length, which may be estimated at from an inch and a half to two inches and a quarter, it being well understood that we speak here of the *apparent*, and not of the real length.

Finally. Fineness is in intimate connection with the different modes of elasticity.

1. *Of the Curl.* (*du frisé.*)

First with the elasticity of the curl, (*elasticité du frisé.*) The more regular and numerous the curls (*frisé*) happens to be in its undulations, the more complete will be its elasticity; that is to say, the more the fibre will return to its first state and position, after the action of the force which had drawn it from its first or natural position—and we shall see that the fineness of the fibre is also in direct proportion to the number and the regularity of its undulations.

2. *Of Shrinking.* (*de Retirement.*)

It is certain that the more supple the fibre, the more it will admit of being stretched, since this susceptibility of elongation is one of the conditions of suppleness; it will be equally a condition of fineness, because of the connexion (*rapport*) which binds those two qualities together. But it is a question to know which of the fibres, fine or coarse, will return again most quickly and the most completely in its first position. This question seems to us to be difficult to be resolved; and it is necessary that we here admit a distinction between the isolated fibre and a *lock* of wool—It is certain that the finer the lock is, and of an equal fineness, the more regular the parallel of its fibres, and consequently the more it will admit of being lengthened by being stretched, and will with regularity resume its first position—as for the isolated fibre, if one judges of it by the eye, it appears more susceptible of the elasticity of shrinking, in proportion as it is coarser; nevertheless we must not forget that the elongation of the fine fibre being more considerable, it can, up to a certain point, possess a greater power of *shrinking* than the coarser fibre, without on that account regaining, with so much facility as it, (the coarser fibre,) its first position, on being *bent*, instead of stretched.

3. *Of the power or act of coming straight again.* (*de Redressement.*)

The inverse affinity or relation which exists between fineness and elasticity of coming straight again after being bent, leaves not the same doubt, for it is very apparent. In effect, the coarser the wool, and consequently the more it is deprived of suppleness, with the greater promptitude will it regain its position.

4. *Of Contraction.* (*Crispation.*)

For that which concerns the habitude of the fibre, of contracting more or less, after having been broken by stretching, a habitude that we have denominated *elasticité de crispation*, (elasticity of contraction)—it is in proportion very direct with suppleness, and consequently with fineness. Thus the parts of a fibre very coarse and very firm will remain straight after having been broken, and those of very fine fibre and very supple, will curl themselves up (*se coquilleront*) in their whole length, in a manner to present the appearance of a little curl or knot.

5. *Of Volume.*

The last elasticity of which we will examine its connexion with fineness, is that which we have recognized in a *union* of fibres, and called *elasticité de volume*. The finer and the more supple the wool, the more a given volume of this matter may be reduced by compression; but quite the contrary will take place in the effort, that a volume of wool compressed will make to regain its first development; for the coarser may be the fibre, the greater will this effort be, since it is the elasticity of coming straight again which restores the wool in this case to its ancient volume.

If one search to develope this volume by separating the fibres, the one from the other, this development will be more difficult; and on the contrary, the return to its first state or condition will be the more easy, in proportion as the wool is more fine and supple. Without searching for the explanation of this fact in the laws of attraction to which bodies are subject, we can find it in the undulations of the wool, which naturally felts (as in making hats) the fibres, and in the elasticity of the curl which ordinarily accompanies fineness.

Affinity of the Length, 1st, with the Nature, (caractère.)

The length of the fibre has an influence upon its nature: and indeed a greater length increases the weight which the fibre constantly has to bear, and that heaviness infallibly counteracts the preservation of its undulations. A long wool also will become round with more difficulty at the exterior of the fleece, and will always have more (*mèche*) locks or bunches, which favour the bad effect of the exterior causes, such as dampness, sand, &c. &c., which make wool lose a part of its character. Moreover, those affinities between the length and the character are very difficult to be pointed out; therefore we will speak no more of them.

2d. *With the Suppleness, Softness and Strength.*

The length likewise is connected with the suppleness, softness, and strength, properly called, only in a very indirect manner: besides, it does not show any affinity with the faculty possessed by the fibre, of contracting and dilating itself, of absorbing or exhaling, as with the elastic strength of wool. Nevertheless, in the divers experiments to which that strength is submitted, the length of the part of the fibre submitted to experiment, ought to be taken into consideration. If we wish, for example, to compare the elasticity of coming straight again in two fibres, an essential condition will be that the essay may be made on two equal lengths, otherwise the longer of the fibres will be constrained by a greater resistance, proceeding from its more considerable weight.

The nature of wool has been showed in its affinities with fineness and length: it is quite sufficient to say something of those that connect it with suppleness and softness, for its affinities with strength, properly called, and elasticity, have been already mentioned; and we do not perceive that it has any with the different properties of the tissue of the tube.

Affinity between the Suppleness and the Nature or Character.

For what relates to suppleness, we generally remark that the more numerous the undulations are in a certain length, that the more short, nearer the exterior, and the greater their equality, and situated in a more direct line, the greater that suppleness is.

Affinity between the Softness and Nature or Character

As for softness, our readers ought to remember that it has two different causes, the flexibility of the fibre and the state of the surface of its tube. We will then distinguish two ways of trying in wool that quality of *softness*. The first will consist in being sure by the touch, if the surface of the fibres be perfectly equal, or if it present some asperity; the second in trying the degree of flexibility and suppleness of that same wool, by lightly rubbing the skin with a lock, or other reunion of fibres in the form of a brush.

As to flexibility, the nature of a regular frizzled, like that which is remarked in superfine wool, will evidently be a sign of softness. As to the equality (*l'uni*) of the fibre, the glossy and flat wool will seem to overcome the frizzled wool, because this will be, by the proper nature of its form, more susceptible of taking upon itself the coagulated parts of greasiness or certain extraneous bodies; but those circumstances disappearing by the washing, the apparent advantage of the glossy wool disappears at the same time.

Every thing which relates to the affinities of suppleness, elastic forces, and softness between them has already been told, and to attain the end which we intended in this section, it would remain only to examine those which can exist between those different qualities, and the faculties of contracting and dilating of the tissue of the tube: but, on that respect, we could not establish here more than suppositions more or less probable.

It might be supposed, for example, that the tissue will be more porous in proportion as it will be more susceptible of being stretched without breaking; and consequently the more supple wool is, the more disposed it is to absorb dampness, &c. We will return to that point, in treating the affinities of the properties of wool with external causes.

(To be continued.)

A SKETCH OF BEDFORD COUNTY, PENNSYLVANIA.

Mr. Skinner:

Sir,—A few weeks ago I received a package of the 10th vol. American Farmer, containing, among other interesting and valuable matter, a part of the answers of Calvin Jones to the queries of Captain Hall, and was struck with the difference of practice in North Carolina, and that which is universal in the central and western parts of Pennsylvania, as to the manner of cropping *new land*, or such "land as is brought into cultivation from a state of nature." The Amer. Far. containing Dr. Darlington's answers to queries from No. 1 to 67, inclusive, unfortunately for myself never reached me. I am not certain, therefore, whether I can add to your knowledge or amusement, by relating the mode in which we reduce our native forests to the operation of the plough in our land of mountains and valleys. I thought, however, that Dr. Darlington, residing in an old, rich and highly cultivated country, such as Chester county, would not be likely to be as well acquainted with the process of clearing and cropping new land as we of Bedford county, who spend our lives at it. At all events the practice may differ, and some of your readers may desire to know every body's way of doing business. Moreover, I find the state of other things in Chester do not in every instance correspond with those of Bedford; and as the object of Mr. Jacobs must be to acquire a knowlege of the statistics of each district in the United States, in order that he may make a just estimate and average of the whole, I propose answering the questions so far as my knowledge extends. I have adhered in general, to the order of the queries, but have not confined myself to their solution, being desirous of sketching Bedford county as it really is. Therefore I send you a *Sketch of Bedford County, Pennsylvania.*

When we wish to clear a piece of land, we, in the first place, stake it off, and provided with a grubbing hoe, take up by the roots every bush or sapling which a stout man can shake in the root by grasping the stem and bending it backwards and forwards. If the roots give to this action, it is called a grub, and must be taken up. Dog-wood, iron-wood and witch-hazel, are always classed among grubs whether they shake in the root or not. After the land is grubbed, the brush is picked in heaps. We then chop the saplings, that is, every thing is cut down which does not exceed 12 inches across the stump. Such parts of the *saplings* as are fit for *ground poles* are chopped to the length of 11 feet; such parts as are fit for fire-wood are left for that purpose, and the top brush thrown upon the heaps made of the grubs. Next, the trees are deadened, leaving one or two for shade. This process of deadening is called by Mr. Jones "belting;" the manner of doing the work is the same, and consists in chopping entirely round the tree a curf of three or four inches wide. A tree is not well deadened unless it is cut to the red; that is, the axe must penetrate through the sap, but it is not thought necessary to chip out more than the bark of oak timber. Sugar-maple, gum, &c. must be chipped out half an inch or an inch. The advantages of deadening timber, are: immense labour is saved in chopping down and burning the stuff on the ground. Indeed in this country it is next to impossible to cut down the timber, unless we live in the vicinity of Bedford, because farmers are not rich enough to pay for it. The dead timber gives us fire-wood for years, which obviates the necessity of resorting to the woods. When it falls the roots are taken out with the tree. On the other hand, the falling branches incommode us for years, covering our grain every winter, and causing great labour in picking it in heaps. The trees fall over the fences and demolish them; sometimes they fall on horses, cattle, &c., killing or maiming them; not unfrequently men and boys have been killed.

As soon as the brush will burn, it is fired and every particle consumed. The fire sometimes *gets away* from the workmen, and great havoc is committed on fences, woods and mountains. After the clearing is burnt, the rail timber is chopped and logged off, the rails mauled, fences made, and the tops of the rail timber hauled home for fire-wood. If saw logs or building timber are wanted, they are cut down and hauled off. At any time between the 1st of September and middle of October, the ground is *scratched*, (rough-ploughed,) a bushel of wheat per acre sown broadcast, barrowed in, and crossed. New ground is sometimes ploughed twice, but this is so seldom done as scarcely to form an exception, though it is admitted that a second ploughing adds a fourth to the crop.

Wheat is universally the first crop sown on new land, unless we clear a patch for potatoes. The average crop is from 12 to 20 bushels per acre. The second crop is rye, oats follow, and then corn. This is the usual course. It is then left out a year or two, and the course begins again until it will produce nothing.

In eight or ten years the timber begins to fall rapidly. When the ground is pretty well covered with old logs, the farmer goes in to nigger off. This is effected by laying the broken limbs and smaller trees across the logs and putting fire to it. Boys or women follow to *chunk up* the fires. In a day or two the logs are niggered off at lengths of twelve or fifteen feet; sometimes the entire tree is consumed. When the trees are thus reduced to lengths that can be handled by men, the owner has a *log rolling*. He *gives the word* to eighteen or twenty of his neighbours the day before the frolic, and when they assemble they generally divide the force into two companies. A captain is chosen by acclamation for each company, and the captains choose their companies, each naming a man alternately. When the whole is formed they set to work, provided with handspikes, and each company exerts itself to make more log heaps than the other. Nothing is charged for the work, and the only thing exceptionable in these frolics is the immoderate use of whiskey. In general great hilarity prevails; but these meetings, like all others in this county, are sometimes disgraced by dreadful combats between the persons composing them. Bedford county, like most mountainous countries, possesses a large proportion of stout athletic men. Bravery is a predominant feature in their character, and they value themselves in proportion to their strength. Hence arises animosities which are seldom allayed but by battle. They possess one noble quality, however, and that is forgiveness of injuries. After a fair trial of strength, though each may have been so severely cut and bruised as to be disabled for several days, they will meet in perfect harmony, and no trace of malice or even resentment appears. This, to one who has always looked upon the indignity of a blow as meriting the chastisement of death, seemed impossible, but there can be no doubt of the sincerity of their tacit reconciliation.

The general price of clearing land is five dollars per acre, put under fence six rails, and a ground pole four feet worm and ready for the plough. Sometimes it is cleared on shares, and then if the proprietor finds the grubber in boarding and lodging, finds horses, seed, feed and puts it in himself, the grubber gets the first crop, or the half of the two first. If the undertaker finds every thing he gets the two first or the three first crops, according as he can make his bargain, and the bargain is usually determined by the quality of the land and the difficulty of clearing. Meadow land is cleared for from four to seven crops.

In addition to our log rolling frolics, we have frolics to haul out dung, to husk corn, and to raise our buildings.

The first, the dung frolic, is getting out of use, and never ought to have been practised, because a man can do it himself.

The corn husking is done at nights. The neighbours meet at dark; the corn has been previously pulled, and hauled in a pile near the crib. The hands join it, the whiskey bottle goes round, the story, the laugh, and the rude song is heard. Three or four hundred bushels are husked by 9 or 10 o'clock—a plentiful supper is provided, and sometimes the frolic ends with a *stag dance;* that is, men and boys, without females, dance like mad devils, but in good humour, to the time of a neighbour's cat-gut and horse-hair, not always drawn with the melody and judgment of Gilliaume.

Our buildings are made of hewn logs, on an average 24 feet long by 20 wide; sometimes a wall of stone, about a foot above the level of the earth, is raised as a foundation; but in general four large stones are laid at the corners, and the building raised on them. The house is covered sometimes with shingles, sometimes with clap-boards. The advantage of the latter kind of roof is, it requires no lathes, no rafters, and no nails, and is put on in much less time. It has been called a poor man's make-shift, and its use can only be justified by the poverty and other circumstances of the country. The ground logs being laid, a saddle shaped Λ on the upper edge, is cut with an axe, at the ends, as long as the logs are thick, then the end logs are raised and a *notch* cut to fit the saddle. This is the only tie or binder they have; and when the building is raised as many rounds as is intended, the ribs are raised, on which a course of clap-boards is laid, butts resting on a *butting pole.* A *press pole* is laid upon the clap-boards immediately over the ribs to keep them from shifting by the wind, and the pole is kept to its birth by *stay blocks*, resting in the first course against the butting pole and then against each preceding pole. The logs are run up on the building on skids by the help of wooden forks. The most experienced axe-men are placed on the building as *corner men*, the rest of the company are on the ground to carry the logs and run them up. In this way a building is raised and covered in, in a day, without a mason and without a pound of iron. The doors and windows are afterwards cut out as the owner pleases. As the country becomes richer and more densely settled, those hastily constructed buildings will give way to more durable and more comfortable ones; but at present there are very few buildings in the county, except on the turnpike, of any other material than logs.

Query 7. We sow on old land 1¼ bushels wheat, rye 1 bushel, buckwheat ½ bushel, oats 2 bushels Barley is not raised in the county, or very partially

8. The average produce of wheat may be estimated at 14 bushels, rye 12, oats 20, buckwheat 25.

9. We strike out our corn land at 3½ feet by 3½, and drop 4 grains of corn (*zea maize*) at each angle Two or three stalks at most are cultivated.

10. I have known corn produce but 5 bushels shelled. I have known it produce 80 bushels. The produce may be averaged at 15 bushels shelled.

11. We consider buckwheat as the greatest exhauster, oats next, corn next, wheat next, rye next.

12. We cultivate no "sheled fruits," except in our gardens.

13. We raise potatoes and turnips in our fields. Mangel wurzel and carrots in our gardens.

14. Potatoes and turnips are partially used as food for cows. I know of but one individual who has raised mangel wurzel and carrots for cattle food, and that on a small scale. Neither of those roots are distilled. The same person has for four years persevered in attempts to cultivate the Ruta Baga, but except last year every attempt was a total failure, and then he was not half paid for his labour. He intends trying it again this year.

Potatoes are indispensable on a dinner table among all classes; I have never heard of their being the exclusive food of any family in Pennsylvania, and yet I am informed the distress in Philadelphia has been very great this winter. Other vegetables together with meat and wheat bread form the aliment of our population. Turnips are not so generally used as potatoes.

15. There is no manufacture of which those roots form the basis.

16. Potatoes are certainly an exhauster. They require the best soil or a thin soil highly manured. Land which will produce fine mangel wurzel or carrots, returns but a poor crop of potatoes, though the general opinion is the contrary. It requires first rate land to yield ten bushels for one planted; and as twenty bushels of seed are usually planted on an acre, two hundred bushels per acre is a good crop. But on an average, one hundred and twenty-five bushels per acre is the crop. I have heard of six hundred bushels on an acre, but I never saw it.

We usually sow turnips on new ground meadow land, prepared by twice harrowing. The timothy is sown a few days after the turnips are up. If the seed is sown at the same time the timothy is apt to smother the turnips. Thin land must be well manured and well prepared to yield turnips.

17. Potatoes are looked upon as an excellent preparative for wheat, corn or oats.

18. Our only mode of saving roots over winter is to dig a hole about a foot deep, and five or six feet in diameter. In this we put about twenty bushels, drawing them up in form of a cone. The potatoes, turnips, &c. are then covered with straw, and earth thrown over the straw about a foot thick. The *hole* is then capt with straw to prevent the rain from penetrating the apex, and they keep well till spring.

19. 20. 21. We raise no tobacco in the field. It is occasionally raised in gardens for family use. It will, however, grow well in our rich lands; and recent political events induce me to believe it will at no very distant day become an article of important culture among us. If our brethren of the South shall exclude our hogs, horses, cattle and manufactures, we must exclude their cotton and tobacco. Hemp, flax, and silk, and the bold unconquerable spirit of mountaineers, which scorns to be dragooned into political measures, the certain results of which are to subject us to the control of a foreign power, and finally to reduce us to beggary, will enable us to dispense with cotton garments. A gentleman by the name of Rhoads, in the adjoining county of Somerset, where the climate is much colder than it is here, so much so, that in some parts of it Indian corn will not ripen, has for a number of years raised from five to ten acres of tobacco annually, and found a profitable market for his crop in Baltimore. It is very certain the soil and climate of Pennsylvania can produce more tobacco than her population consumes. We fear nothing from the restrictive or non-importation system of the South. We can plant mulberry trees, sow hemp and flax, eat more veal and roast pig, and plant some of our clover fields and meadow land in tobacco.

22 to 30 inclusive. We raise no cotton or sugar cane, but we manufacture sugar from the sugar-maple (*acer saccharinum*.) This tree, which arrives at a size rivalling the largest white oaks, flourishes in our sandy bottoms, sponty drafts, on the sides of our mountains and the summit of the Alleghany. It is slow of growth, hard to kill, but when dead soon rots. The roots are numerous and strong, interlaced on or near the surface of the ground, so that it is impossible to plough near them.

When the sugar season begins, which is generally about the first of March, the sugar maker repairs his *camp* if it is out of order. The camp is a small shed made of logs covered with slabs or clap boards, and open at one side. Immediately before the opening, four wooden forks are planted, on which is placed a strong pole. From this is suspended as many wooden hooks as the sugar boiler has kettles, usually four. Wood is hauled, and it requires a large quantity to boil a season. The troughs to receive the water are roughly hewn of cucumber, white or yellow pine, or wild cherry, and contain from one to three gallons. The trees are tapt with a ¾ auger, about one inch or an inch and an half deep. In the hole is placed a spile or spout 18 inches long, made of sumach. Two spiles are put in a tree. A good camp will contain 150 or 200 trees. When the troughs are full the boilers go round with a sled drawn by horses, on which are placed two barrels to receive the water. Having filled the barrels he returns to camp, and fills up the vessels, which consist of his meat vessels, &c. well cleaned. The water which is gathered in should be immediately boiled, because it makes the best sugar. If left to stand a few days it becomes sour and ropy. They fill up the kettles, and as it boils down, the kettles are filled up again until all is boiled in. In order to ascertain when it is fit to *stir off*, a little of the molasses is taken out in a spoon, and dropt into a tin of cold water. If the molasses is thick it will form a thread in the water, and if this thread will break like glass, when struck with a knife, it must be taken off the fire and is fit to stir off. The kettle is set on the ground and occasionally stirred till it cools and granulates. Great judgment is required, and the most exact attention to take it off at the very moment it is fit. If it is taken off too soon, the sugar will be wet and tough; if it is left on too long, it will be burnt, be bitter, and scarcely fit for use. Some boilers try it by taking a few drops of the molasses between the thumb and finger, and if it ropes like glue when it cools, it is said to be in sugar.

A tree is calculated to produce a season a barrel of water of 30 gallons, and it requires six gallons to make a pound of sugar. This estimate, however, appears too large. I have never known a camp turn out, one tree with another, more than three pounds. In Jamaica it is not unusual for a gallon of raw cane liquor to yield a pound of sugar. It is supposed there can be no doubt of the fact that our trees do not produce as much as formerly. Many of the trees have been injured by fire, but the fatal cause of their deterioration is the auger. When a tree is cut down which has been frequently tapt, there is a black and rotten streak for a foot above and a foot below many of the auger holes. The great miracle is that a single sugar tree is alive in Bedford; but the almighty Fabricator of the Universe has in his infinite wisdom and beneficence bestowed on this precious tree a tenacity of life truly wonderful. Though every year assaulted by the axe, the auger, or by fire, it clings to existence, and yields to its ungrateful possessor a luxury and necessary of life, which but for it would command a price which would debar its use from the poor. The average price of maple sugar is from 6 to 10 cents per pound.

A society was formed in Centre county, two or three years ago, with the Hon. Charles Houston at its head, for the purpose of propagating the sugar tree, and extracting the water from the roots. Whether they have succeeded in their enterprize, or whether the society has perished amidst political turmoil, I know not. In this county a few partial attempts have been made to plant out the young trees found in the woods, and they have succeeded.

31, 32 There are two distinct kinds of meadow in this county. One kind is formed by the flat bottoms of our creeks and rivers, and the other is drafts or little valleys running from the sides and tops of mountains and ridges into a water course. A winter stream generally meanders through those valleys, and the sides of the hills through which they run are wet and spouty in winter and spring. These are sown in timothy, produce a heavy swarth, and are considered more durable than bottom meadow. I know of none who keep meadow for the purpose of fatting cattle, nor do I know of any in this county which in strictness can be called *natural meadow.* It is not the soil which constitutes meadow, but the grass combined with the soil, and the purpose to which it is applied.

Johnson defines meadow to be "pasture land;" but this definition is about as satisfactory as his definition of oats, or Cobbett's definition of purselaine, for at that rate our clover fields would be meadow *pro tem.*

A natural meadow is such as God made it, without the aid of art; a prairie, for instance. We grub out, deaden the timber and sow in timothy our wet spouty lands. Therefore ours is artificial meadow, but naturally moist land adapted to meadow. We always cut them for hay and pasture the after-math. Were we to devote our meadows to pasture, I presume it would require an acre and an half to fatten an ox.

33. All our plough land is admirably adapted to rearing and fatting sheep. It is remarked by the visiters at our springs in the watering season, that the Bedford mutton cannot be excelled in flavour. The breed is mongrel, but a moderate degree of care makes a tolerable fleece, and healthy animal.

34, 35. I have no genera, and am not botanist enough to determine the genus or species of our spontaneous grasses without one.

36. We cultivate red clover and timothy. White clover is indigenous; our meadow land is sown in timothy, upland in red clover. Some few have attempted the red top. The result is not yet fully ascertained. The clovering system is becoming general.

37. We cannot readily ascertain the weight of a lean ox, without the help of instruments, which we have not.

38. The average weight of our steers is from 300 to 700. We kill at too early an age; generally at from 2 to 4 years. Our oxen do not attain their growth till 7 years old.

39, 40. The most favourable season for fattening is from May to September. Cattle which have been kept over winter on straw and hay, refuse it in the spring, and about the first of May the pasture affords a good bite. If they have been well wintered, clover will make them good beef; if a feed of bran, or oats, or chopped corn is given to them every other day with a table spoonful of salt, they will be fit for the butcher in three months. If they are stall fed they require from 3 to 6 months to make what may be called good beef. What we would call lean cattle, however, an English farmer would call, probably, carrion. It is certain that we do not make our beef as fat as the English do, because the citizens of Bedford, who are our consumers, will not give us a price to justify our care and expense. If they can get carrion which never saw an ear of corn or a bushel of oats, which is as black as the hinges of Newgate, and tough as the tail of his satanic majesty, at 2 cents a pound, they would rather mouth it till their jaws, conquered by everlasting flesh and sinew, refuse to wag, than pay a farmer 6 or 8 cents for beef, such as a man who had any regard for his bowels might fancy. But, *de questibus non disputandum,* and if those citizen burghers choose to demolish the bone and sinew of a murrain, instead of enjoying the luxury of a good beefsteak, even let them; I shall not quarrel with them—Ephraim is with his idols, let him alone. But I must be permitted to say they have a very depraved taste, and their liberality is by no means proverbial. The Baltimoreans and Philadelphians ought to refuse their patronage to our springs, unless the Tavern keepers agree to furnish their tables with better beef. From these premises, if I answer query 41, I would say it is all bone, muscle and sinew, and no tallow at all.

42. I know of no method by which I can arrive at accuracy in estimating the weight of hides. Last year I killed a steer whose quarters weighed 669 lbs. hide 101 lbs.; a steer 400 lbs., hide 60 lbs.; a bull 468 lbs.; hide 86 lbs.; a steer 704 lbs., hide 110 lbs. An extensive and experienced tanner informs me the average weight of hides, excluding calf and kip, is about 55 lbs.

43, 44. We make no cheese. The cream is converted to butter. Cows generally do not produce more than 3 lb. per week.

47. Calves are weaned sometimes at 24 hours, sometimes not for 4 weeks.

48, 49. When intended for slaughter they are permitted to suck the cow for 3 weeks or 2 months, and then killed.

(To be continued.)

HORTICULTURE.

USE OF SOFT SOAP ON APPLE TREES.

J. S. Skinner. *Beaverdam, Va. 6 Mo. 8th,* 1829.

Respected Friend,—Four years ago I planted an apple orchard; and I selected such a soil and situation as my observation best enabled me to judge was adapted to the growth and prosperity of the apple tree. I have cultivated the ground with much care, and the vigor and thriftiness of the orchard generally, appeared to promise a full reward for all my attention. But every year I have lost some few trees, more and more every succeeding summer; though never so many as to induce me to ascribe their decay to any other cause than the influence of climate. Their present appearance, however, contrasted too with other orchards in my neighbourhood, seems to indicate that there is some particular cause of declension, unconnected with climate; and as I believe it is entirely dependent upon an usage, highly recommended, and perhaps frequently practised, I am induced to make it known. I have been in the habit of washing the bodies of my trees with soft soap, undiluted, every spring, since they were transplanted, which so entirely changed the colour of the bark as to excite the attention of all who examined them. From a beautiful, healthful green, it would quickly after the application of the soap, assume a glossy, golden hue, from which, however, it would generally recover in the course of the summer; but such trees as were not of sufficient vigor to overcome the shock, or on which the soap had been laid too freely, (sometimes embracing the largest in my orchard,) would languish throughout the season; their foliage would become pale; and they would die the succeeding year. On minutely examining the bark, I observed that in some instances the outer skin would be pealed and curled; in others, large spots would be entirely deadened; and in others again the bark would be separated from the trunk so as to yield very sensibly to pressure:—in every case the injury was within one or two feet of the ground.

I should probably have remained in ignorance of the cause of this fatality, but for an accidental circumstance this spring. I gave the person whom I directed to wash my trees, a sufficient quantity of soap, as I thought for the whole. Going from home, it was not until several days afterwards that I found on inquiry, not more than half were soaped; and I then concluded to leave the rest, to see what difference there would be in their appearance. The result is, that of those that were washed, many exhibit evident symptoms of decline; while in the other part of the orchard, the growth of the trees is more luxuriant, the bark of a healthful colour, with scarcely a case of disease. One of my neighbours also, who has a beautiful young orchard, has met with a somewhat similar disappointment; though the fatality amongst his trees has not been so great, owing to his not having made so frequent use of the soap as I have. And a favourite nectarine tree, which was soaped by him for the purpose of destroying lice on the branches, has its bark loosened from the trunk in the same manner with some of the apple trees. Another neighbour, who has not used the soap at all, has a most flourishing orchard, one year younger than mine, which does not show the least evidence of decay, though I should suppose the situation was less favourable.

If these facts, and the conclusions I have deduced from them, should be of sufficient importance, either to elicit more definite information from persons of more extensive observation, or to guard others aginst the too frequent use of the soap, who have to rely somewhat on the experience of other men, I should be glad to see the substance of them communicated through the medium of your valuable journal.

Respectfully thy friend,

T. S. Pleasants.

(From the Hagerstown Farmer's Register.)

ATTEND TO YOUR FRUIT TREES.

Caterpillars have commenced their ravages, and now is the time to arrest their progress.—If observed in time, hundreds may be destroyed by the removal of a single leaf or a small twig. There are many species of them, altogether different in their character and habits; some living in communities, while others wander about singly. Those that form nests on the pear tree, plum, apple, mulberry, &c., and were so numerous and destructive last summer, are produced by a white miller, about three quarters of an inch long, very common at this season of the year. The female, when ready to deposit her eggs, fastens on the under side of the leaf, where she remains at her work for many hours, sometimes a day or two, quite still, barely moving enough to place her eggs in regular order. This is the closing act of her life, and by the time it is finished she is quite exhausted, and generally drops down and dies.—By observing where one lies under a small tree, you may be directed with great certainty, to the leaf from which it fell, where you will find from four to eight hundred eggs, compactly arranged and covered with a coat of fine down, and so nearly resembling the colour of the leaf, though somewhat lighter, as not to be readily perceived.—In the course of five or six days the caterpillars are hatched, and commence feeding on the same leaf, where they remain a day or two until it is consumed; they then extend their web to two or three neighbouring leaves, and gradually spread themselves over the branch, increasing in rapacity, and destroying every leaf in their progress. They do not devour the entire leaf, but leave the skin on the upper side, which changes colour and enables you to detect them, before they have left the first leaf. Lovers of fine fruit, who will take the trouble to examine their choice trees every morning, may easily protect them from the ravages of these caterpillars, by the removal now and then of a few leaves, which can be done on the higher branches by means of a sharp knife fastened to the end of a rod.

The yellow caterpillar or worm, speckled with black, that strips our grapevines of their foliage, is produced by another insect much in the same way. They make their appearance in June. Their eggs are also deposited on the under side of the leaf, they are larger than the above and not so numerous, of a yellow colour, round and shining. These caterpillars when young, also leave the skin on the upper side of the leaf which turns yellow as it dries and discovers where they are.—They remain at least four or five days on their native leaf, and when it s consumed spread themselves rapidly over the branch. By examining your vines frequently, and removing the seared leaves, you may effectually protect them.

Leaves are essential to the health of a tree; through them moisture is absorbed and gases are inhaled from the atmosphere, and something analogous to respiration is carried on. Some trees bear their loss better than others, but all must have their vigour impaired. Nor is the injury confined to a single season; for frequently in consequence of the untimely loss of foliage, there is an effort of nature to repair the loss, and the young buds forming for the ensuing spring, are forced out prematurely; the tree is covered with blossoms in October, and is thus deprived of her store for the ensuing season.

A.

[There is an excellent utensil for sale at Messrs. Sinclair and Moore's, for cutting off the leaves containing caterpillars. It is used in England for gathering choice fruit without bruising; but its use may be extended to a variety of purposes—among which that of destroying caterpillars is not the least important. For gathering *mulberry leaves for Silkworms*, from large trees, it is an admirable contrivance. It is a stout kind of shears, fixed on a light pole, with a cord to operate with. If fixed upon a stiff reed, it may be increased, or diminished at pleasure to almost any required length, with very little trouble.]

LADIES' DEPARTMENT.

WOMEN AND INTEMPERANCE.

The following spirited remarks on the influence of *women* in the suppression of intemperance, are from an address recently delivered by John Neal, before the "Portland Society for the promotion of Temperance."

But still we are not safe. It is not enough that our mechanics, our labourers, our strong men, our gifted and our youth, are engaged in the great work. Our *women must be with us, or we cannot hope to prevail*—our mothers, our wives and our daughters—the other half, and in such matters, by far the most influential half of our whole population.

It is not enough that we confederate together abroad; a man, to discourage the use of strong drink in our workshops, in our taverns, or in the highway—to make sobriety one of the qualifications of a ruler—to encourage the culture of the grape, or the use of cheap and safe wines that would be accessible to the poor, and not lead to a desire for any thing dangerous—to labour night and day for the overthrow of the destroyer: it is not enough that we do all this, if the wives and mothers, and sisters of our country, continue to make our very home a snare to us, every sociable coming together, every fire-side interview, every joyous event an excuse for tampering with the shadow or playing with the skirts of the enemy. As for what we may do—

"———We but wear
Our strength away in wrestling with the air."

So long as the women persist in pouring the fiery drug into the cradle-cup of the babe—mingling it with the food of the infant—substituting fever for health, and sorrow for strength, counterfeiting the stream of pearl, and hiding the treachery with flavour, and colour, and perfume; for all these things are to be done, before the youthful purity of taste can be perverted. What are we to do, when we have, under one pretence or another brandy mixed with our very food—our sauces—our jellies—our cakes and our pies, with whatever is intended to be better and richer than usual? What are we to do as men, after we have been made to relish the flavour of ardent spirit in this way—from our cradle to our grave—accustomed in our pap—taught in our very childhood, to sit up to a table and throw off a glass of wine, like a man—of Portuguese wine too, such as the Portuguese themselves never drink, for we, like the English, have it with what we call a body to it, in other words, overcharged with brandy—in a glass of our own too; for where is the child without a wine cup of his own?

Let every mother beware. No human creature ever loved the open perceptible, undisguised flavour of rum, or brandy, or whiskey, or Portuguese wine,—or tobacco—but he is led to a relish for them, while a babe—or a child—worried into a liking for them, till he has overcome the loathing and horror, the prohibition and the penalty of him that loveth his creatures; and goes down to the chambers of death—a drunkard and a beast.

The women of our country, they who surround us with a living sunshine, with life and virtue like an atmosphere—even they are chargeable with, perhaps, a chief part of our present degradation, guilt and sorrow. But for them we never could have been what we are—a nation labouring with a fiery plague, that afflicts every twelfth of our number—and in the way of becoming a people of drunkards. Not that they themselves are lovers of strong drink; but they it is, that have taught our fathers, and ourselves, and our children, to love it. Are they not the first and chief teachers of men?—And yet they sing of the red grape; they plant the vine about every path we tread in life—among our very household gods; they offer the wine cup to all that approach them—and they make little or no distinction where they may, between the temperate and the intemperate, the dissolute and the virtuous.

Do they recoil at the charge? It is true, nevertheless, were they to do as they ought—were they to stand forth in their purity and power--were they to forbid the hope of the intemperate—were they to do no more than they may do, without reproach; they would reform posterity without the help of man.

Would they know the whole worth and whole extent of their glorious privilege, let them look abroad over those, who are now lying like a mountain upon the heart of her proud country. But the other day, they were good citizens—lovers—husbands—fathers—what are they now? The very dregs and refuse of the age: mighty men shipwrecked by their own folly, self-murderers, brutes. They would rather have died any death, but a few years ago, than be what they now are and live. They were not like that young man.—Stop!—the goblet you are now emptying to escape a laugh, to avoid shame, is the goblet of death—of more than death—of perpetual shame. Have you no mother, no wife, no sister, no beloved one, to snatch at your uplifted arm, or to cling to your knees? If you have, you are safe. They were like that older man you see there; too confident in their own strength, too sure of themselves they parleyed with danger, they toyed with the betrayer; they put themselves with a laugh, in the way of her blandishment, and were lost forever.

To that man there, the cup of strong drink is not now *necessary*. A twelve month from to-day, he will hunger and thirst after it, languish after it, as for his natural food. Another and another year, and he drops into the ranks of that innumerable army, who are staggering by us, night and day, towards an awful death and a premature grave. And why does he not stop where he is, and fall upon his knees, and give thanks to God, and build an altar on the spot? Because no woman is forever at his elbow, praying him to forbear, and asking him whether it is not more likely that he may become a drunkard before he dies, than it was but the other day—on the day of their marriage perhaps, that he would ever be as fond of strong drink as he is now?

But enough. We are assembled together as I said before, in a cause worthier of a great people, than was that which led the men of the revolution to war. It deserves to be celebrated on the great national sabbath of our country. And if our women will do their duty, at the end of another fifty years from to-day, one of the greatest revolutions that ever purified the earth, or opened the sky to the good spirit of man, will be accomplished. Next to God, therefore, let us put our trust in woman—

"The hope of the nations—the bravest and best,
That e'er smote the plumage from tyranny's crest."

The following beautiful lines form no idle picture of the fancy. How many a female, bred up in ease, in affluence and refinement, and afterwards made happy in the husband of her choice, has been doomed at length to realize the sad reverse here described.

Soliloquy of a Drunkard's Wife.

***Time was, when much he lov'd me:
When we walk'd out at close of day t' inhale
The vernal breeze—ah, well do I remember,
How then with careful hand, he drew my mantle
Round me; fearful lest the evening dews
Should mar my fragile health. Yes, then his eye
Look'd kindly on me; when my heart was sad,
How tenderly he wip'd my tears away,
While from his lips the words of gentle soothing,
In softest accents fell.
How blest my evenings, too, when wintry blasts
Were howling round our peaceful, happy dwelling
O, it was sweet, the daily task perform'd,
By the swept hearth, and cheerful fire, to sit
With him I lov'd: to view with glistening eye,
And all a parent's fondness, the budding graces
Of our little ones.
***Then ye had a father,
My lovely babes, now more than helpless orphans!
Thy mother more than widow's grief has known;
Yes, sharper pangs than those who mourn the dead,
Seiz'd on my breaking heart, when first I knew,
My *lover-husband*—O, my earthly all,
Was dead to virtue! When I saw the man
My soul too fondly lov'd transform'd to brute,
O, it was then I tasted gall and wormwood!
Then, the world look'd dreary! fearful clouds
Quick gather'd round me; dark forebodings came.
The grave before was terror: now it smil'd,
I long'd to lay me down in peaceful rest,
There to forget my sorrows. But I liv'd:
And O, my God! what years of wo have follow'd!
I feel my heart is broken. He who vow'd
To cherish me—before God's altar vow'd—
Has done the deed. And shall I then upbraid him—
The husband of my youthful days—the man
For whom I gave my virgin heart away?
Patient I'll bear it all.
***Peace, peace, my heart!
'Tis almost o'er. A few more stormy blasts,
And then this shatter'd, sickly frame will fall,
And sweetly slumber—where the weary rest,
The wicked cease from troubling! [*Christian Jour.*

HOME.

Though friends we may meet wherever we roam,
There's none so sincere as the friends of our home;
'Tis to them that we look whenever we part,
For the tear which we know will come warm from the heart.
Home! home, sweet, sweet home—
There's none so sincere as the friends of our home.

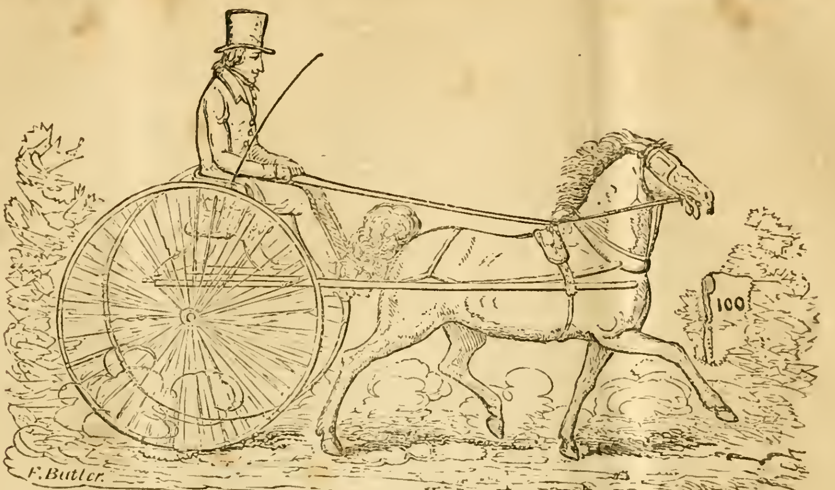
Tho' fortune should frown, and the world should condemn,
The friends of our home will shine loveliest then;
They ne'er will forsake us, in weal or in wo,
And their blessing will follow wherever we go.
Home! home, &c.

Ebenezer.

If you sometimes say less than you are thought to know, you shall at another time be thought to know more than you say.

PORTRAIT OF TOM THUMB, THE CELEBRATED AMERICAN HORSE,

In the act of performing his Match of One Hundred miles, on Monday, the 2d of February, 1829, over five miles on Sunbury Common.



In our last, we gave the accurate details of this interesting and unprecedented match, which was performed in ten hours and seven minutes. The horse, which is called Tom Thuma, had earned great fame in America previous to coming to this country, and won all his matches, with the exception of one, in which, from foul play, he was run off the course, and another, in which he was opposed by a runner and not a trotter. His height is fourteen hands two inches, and his appearance, when standing still, rough and uncouth. From his birth, in fact, he has never been shorn of a hair. He is a remarkably hardy animal, and receives none of those delicate attentions in the stable to which great performers in this country are accustomed. He feeds well, is free from all vice, and as playful and good tempered as a lamb; his age is 11 years, and he has never had a day's illness. At full speed, his action is particularly beautiful—he throws his fore-legs well out, and brings up his hind quarters in good style; he trots square, though rather wide behind, and low. It will be seen from the sketch, that he is driven without a bearing rein, and simply with a snaffle bit and martingale. He pulls extremely hard—his head being, in consequence, well up, and close to his neck, and his mouth wide open. He evidently does his work with great ease to himself; and at 11 miles an hour, seems to be merely playing, while the horses accompanying him labour hard. The reins are only precisely the length necessary to give the driver a full purchase--as, from the hardness of his mouth, every aid is necessary to restrain his speed. Mr. William Haggerty, the groom by whom he was driven, is an American by birth, and was brought up in the family of the Proprietor; he is twenty-two years of age, weighing, in his clothes, rather more than ten stone, (140 lbs.) The horse has been under his care for some years, and recognizes him with the sagacity which usually belongs to these noble animals. Haggerty was evidently fully apprized of the powers of the horse, and husbanded them with a degree of discretion and judgment highly creditable to his experience; and notwithstanding the distance he drove, in one of the coldest days we have had during the winter, he never once flagged, and, after the task was performed, never quitted his horse till he was well groomed, clothed, and in the enjoyment of a hearty meal, having first partaken, with a good appetite, of half a pail of gruel; on leaving the stable, the little animal was as full of play as if he had but just risen from his night's rest. The whole time allowed for refreshment and rest, during the journey, amounted to but thirty-seven minutes, and this included taking out and putting to, taking off and putting on the harness, feeding, rubbing down, and stalling. The day before, and the day after the start, the horse walked full twenty miles, and is now in good condition. The Groom drove in a common frock coat, and in the ordinary costume in which he does his daily business. A common riding-whip was provided, which remained in the whip-case the whole day, without once being used. A slight kick on the hind quarters was, in fact, sufficient to increase speed when necessary. As a proof of the good temper of the horse, it is sufficient to state, that his tail almost rested on the foot-board throughout the journey. We have already stated, that great praise is due to Mr Harry England and Mr. F. Smith, for their attention to the horse throughout the match.

The Match Cart is one of the lightest and best constructed we have ever seen. Its weight is 108lb.—the shafts are of American ash, and, from the hind to the fore part, are nine feet four inches in length—and the axle, which is of well-tempered iron, is strong, and four feet from linch-pin to linch pin. The wheels are five feet in diameter--light, and beautifully made. The seat is supported by thin iron rods, and rests upon two iron bows, but without a spring. The frame of the seat is covered with leather, and there is also a leather cushion. From the length of Haggerty's legs, and the shallowness of the foot-board, he was obliged to place his feet on the cross spar, close to the horse's quarters, which presented him in rather an awkward form to the spectators. The Machine was built at Newark, in the Jerseys, near New York, by a maker celebrated for building this description of vehicle. The harness was old, and as inelegant in appearance as the horse, and by no means light; in fact there was as little of the *dandy* in the *set-out* as could well be imagined upon so interesting a match. Use, and not ornament, was consulted, and he has done all his matches in the same harness.

A New Challenge.—We are now authorized to back the same horse to trot One Hundred miles, in the same machine, in Ten Hours, in six weeks from the present date, and the owner will stake One Thousand pounds to Five Hundred on the performance of the distance within the time stipulated. We can also back him to trot any horse in England, in or out of harness, from one mile to five, within one month of the present time, for 1,000*l.* a side.

A painting of the Horse and Machine is now on the easel of Mr. S. E. Jones, the artist, from which an engraving will be published by Mr. Knight, of Sweeting's alley, Cornhill. [*Eng. Paper.*

THE FARMER.

Baltimore, Friday, June 19, 1829.

Washington, June 5th, 1829.

To J. S Skinner, Esq.
Corresponding Sec'ry of the Md. Agric. Society.

Sir—His majesty, the Emperor of Brazil, has been graciously pleased by an order of the 27th of March, to permit me to accept the honour of being a member of the Maryland Agricultural Society, required in consequence of that body having done me the honour of admitting me as one of their number, according to their Diploma of the 18th September, of 1828.

I beg you to inform the society, that now I consider myself more strictly one of their collaborators, and only regret that my inability does not permit me to do so much as I wish.

Sending you this communication I hope you will accept my thanks, for the interest you personally feel for my welfare, and to believe me with great consideration.

Sir, your most devoted servant,
Yl. Silvestre Rebello.

London, 28th April, 1822.

Sir,—I have had the pleasure to receive your favour of the 22d Dec. last, and with it a diploma of the Maryland Agricultural Society, by which I am admitted a member of that beneficial and respectable association.

I beg you will do me the kindness, to communicate to the society, my grateful acknowledgment for the honour they have done me, by enrolling my name in their number, to express my very high sense for this mark of their attention and to assure them that I shall be very happy to devote my time and attention to the interesting subject on which their union is founded, in such a manner as to reflect no disgrace on the election they have had the goodness to make.

I beg to present my best wishes for the prosperity of this society, and express a hope that their pursuits and communications may extend the knowledge, and improve the practice of the most important of all the occupations of civilized man, in the whole of that extended territory in which it is established.

I have the honour to be, sir,
Your most obedient servant,
William Jacob.

☞ Broad-tail Sheep—*A present from the Navy*

Sir,—I have a fine Asiatic Sheep, which was presented to me by my friend John A. Kearney, surgeon of the fleet in the Mediterranean, who states that he was presented to him by Mr. Cunningham, an English merchant in Smyrna. This buck was raised by hand in the establishment of the "Aga" of the town of "Cooklija," a few miles from that city

With a desire to extend his usefulness, I have the pleasure to offer to the acceptance of the Agricultural Society of this place the loan of him for one year.

I am, very respectfully, your obedient servant,
L. Kearney.

To. J. S. Skinner, Esq.
Corresponding Sec'ry, Md. Agricultural Society.
Baltimore, June 14, 1829.

The mutton of this stock has been found superior to any other—of its wool I know nothing.

L. K.

[Its wool is on a par with common country wool—the sheep is a very fine one of the kind, being but a lamb. It grew very much on the voyage, and the flesh of its tail is, we should say more than a foot wide and of equal length—we should think that a quarter of this blood would give breadth to the tail and fatness to the hind quarters that could not fail to yield saddles of mutton or legs of lamb of very superior quality. We recollect that Col. Powel, had once the goodness to walk with us through the Philadelphia market, to make enquiries of the sheep victuallers, who averred that they had never had such early and fine lamb or saddles of mutton so superior as when they had a due mixture of the broadtail sheep.—The ram left by Capt. Kearney, is at Oakland Mills, the beautiful estate of T. Oliver, Esq. one of the trustees of the Maryland Agricultural Society—we venture to say that when the season arrives for it, any member of the society can send a ewe or two, and thus getting a ram of half blood, he may afterwards have quarter blood, which we apprehend, is about the degree of it that would be most expedient.]

P. S. The problem is not yet solved, why it is that in this country, the male cannot overcome the physical difficulty presented to copulation by the immense breadth of the tail of the female—yet the fact is undisputed and indisputable.

☞ The communication signed "*A well wisher of the American Farmer,*" has been received. The facts are interesting, but they implicate *equine* property and character of too much value to be published on anonymous authority. We cannot too highly estimate the importance of *clear, well established* Pedigrees. It is of much more importance in horses than in men—for, although much depends on *blood* in the latter case, the crossing is not within our control, and hence we can never accomplish the physical and moral improvements of which the race would be susceptible, The horse being an affair of management, we cannot too strictly attend to *family!* but it would be unjust and pernicious, to question the purity of a stallion of high renown on anonymous suggestion. Much mischief was done, for instance, by a report, which we are now convinced was erroneous, that the imported Horse *Punch* was not the real Punch. It prevented the diffusion of his noble blood, except in a very limited degree, just enough to make all regret that the doubt of his genuineness was ever suggested, plausible as were the reasons for entertaining that doubt.

☞ Jack Asses.—There are at Mr. Stansbury's stable, on Fell's Point, two uncommonly large animals of this description, brought recently from Spain by Capt. Gill, of the Leander. They are both considerably upwards of thirteen hands high, though one is but three and the other but four years old. They are large bodied, high spirited and well made, with much bone, and in performance "nothing loth," as the Captain took the precaution to ascertain before he purchased them. They are both for sale, but will not remain here long if not disposed of.

☞ Maryland Chemical Works—Calcined Magnesia.

Although, at first thought, the subject of these brief remarks may appear foreign to the designs of our journal, a moment's reflection will lead to a very different conclusion. The farmer, above all others, is interested in the supply of cheap and pure medicines. Every good farmer will have at hand his bottle of Magnesia, and a few other simple but efficacious curatives for timely application when the occasion does not require the attendance of the Doctor, and when his distant residence makes his immediate attendance impracticable. A timely dose, like a timely stitch, often saves nine.

Among the many monuments that the spirit of patriotism and enterprise have raised up in our city, there are some which *tower* higher than even that intended to commemorate the glory of Washington. But our object is to speak of one, humble in altitude but high in estimation for the benefits it is calculated to confer on the community, both town and country. We allude to "The Maryland Chemical Works," of the Messrs. McKim. These gentlemen, besides their own ample resources in the science, have the advantage of the aid of a skilful practical chemist from France, Mons. de La Cretar, who brought letters from some of the most respectable gentlemen of that country;—one from General Lafayette to the editor of the American Farmer, spoke of him in the highest terms as being a complete master of the science of practical chemistry. With these advantages the Maryland Chemical Works, are now able to turn out many of the most useful articles of the Materia Medica, as well as most of the chemicals used in the arts. To enumerate all the products of the establishment would be tedious; but there is one article, in such general—such universal use among all classes, which these works have produced, that it deserves a particular notice—we allude to *Calcined Magnesia.* For many years "Henry's Calcined Magnesia" has almost monopolized the markets of the United States, and has extorted a high, and, it is thought an unreasonable price. It *was* a good article, but it was only to be bought with a good price. This article has now a powerful, and we have no doubt a successful, competitor in "*McKim's Genuine Calcined Magnesia,*" which is recommended as its equal in all respects, and is sold for little more than half the price of Henry's.

This article is prepared from the carbonate of magnesia, (common magnesia,) which is also manufactured at the Maryland Works. It has been gotten up with considerable expense, and with great care and persevering industry, and is the exclusive production of Richard McKim, Esq one of the firm, whose exemplary industry and application to useful science, without waiting to be prompted by necessity, we are glad to hold up as worthy of imitation to young men of less means, who spend their time in the feminine occupation, of spinning street yarn or standing at corners, to stare at those who do.

Those who have used McKim's Calcined Magnesia have admitted it to be equal if not superior to any vended in this country—in fact it has been submitted to tests which cannot err, with Henry's and other imported articles, by which its equality in every respect has been established. Under such circumstances it is no matter of surprise that it is gradually getting into repute. It should be a subject of pride to Baltimoreans particularly, as it may be called a Baltimore article entirely—the glass having been made here, and the materials obtained from the neighbourhood.

Baltimore Market.—Howard street Flour continues without a change, the wagon price still being $6.12½, and the store price $6.25 *a* 6.37½. There has been a very considerable falling off in the inspections of the last quarter, compared with those of the same quarter in 1828. In March, April and May, 1828, the inspections amounted to 152,356 barrels; during the same period in 1829 they amounted to only 103,993 barrels—deficiency 48,363 barrels. It is also stated that there is no Susquehanna wheat in market. *Live Stock.*—We have heard of no sales worthy of particular notice. The prices remain unaltered.

Latest Foreign News.

By the packet ship Pacific, London and Liverpool papers, have been received at New York, to the 16th May.

There had been some rioting in Spitalfield among the silk weavers, many looms had been attacked and destroyed, and immense mobs continued to parade the streets until the 9th of May, when it was announced that the masters had agreed to restore the prices of 1824, according to the demand of the workmen. The streets were thronged on this occasion with weavers, their wives and families, who rent the air with huzzas and acclamations. On the same day there were disturbances at Stockport. A large crowd assembled, resisting the attempts of the magistrates and police officers to disperse them, and finally yielded only to the military. After this down to the 15th there had been no further breaches of the peace.

Three banks are mentioned as having stopped payment in the West of England, viz: that of Messrs. Floud & Co., of Exeter, and two of Messrs. Sharpe & Co., one at Chard, and the other at Crewkerne. "These houses were connected with manufacturing operations, and their failure is, no doubt, owing to the calling in of the one-pound notes. Thus the Small-Note Extinction Act has begun to produce its natural effect—namely, the extinction of those banks which rested upon such circulation for their existence."

Mr. O'Connel made an attempt to take his seat in the House of Commons on the 15th. On being required to take the *old oath,* he declined, and was required to leave the house without being heard. The case was to be argued on the Monday following, when it was probably decided, whether Mr. O'Connel was entitled to his seat without a re-election.

Advices from Constantinople up to the 13th of April say that the Sultan has re-established the free trade in corn, and the capital is now well supplied. The government had formerly a monoply of the trade in corn, flour, rice and oil. The Sultan has now given it up and the city has experienced the good effects of the change in an immediate reduction of prices. The merchants are no longer obliged to deliver these articles into the public magazines, but may dispose of them at their own discretion. The blockade of the Dardanelles has not been able to prevent the entrance of English vessels laden with wheat. The negociations with the envoy of the Netherlands are going on, and as an indication of a disposition to terminate the difference with England and France, it is said that the Porte has, by the omission of the Pacha of the Morea in the list of functionaries, consented tacitly to the emancipation of the Morea and the Cyclades.

RUSSIA AND TURKEY.

News from the Theatre of War.—The Journal of Odessa contains the following bulletin:—

"Hussein Pacha who had assembled near Bourgos 4000 infantry and about 1500 cavalry, attacked, on the 9th of April, at day-break, with his whole force, the mountain redoubt near Sizoboli, which Major Lebedeff, with the two battalions of the regiment Asoff, defended with the greatest bravery. The attack was terrible. In spite of the fire of grape shot from eight guns, supported by a well directed fire of musketry, and by grenades that were thrown out out of the trenches, an officer of the regular troops in the suit of Hussein Pacha, and three other Turks, succeeded in climbing the parapet, and penetrating to the interior of the redoubt, where they fell, pierced with wounds. At the moment of the first alarm, the troops forming the garrison of Sizoboli assembled with astonishing rapidity on the parade before the place from which Gen. Wachten sent them against the enemy, viz. two battalions to the right and two to the left. He himself, at the head of one of these battalions and two guns, supported by the regiment of Dnisprofsk marched againgt the right flank of the enemy, who was attacking the gate of the redoubt with great impetuosity. All the troops advanced, with drums beating and loud huzzas, and rushed on the enemy with fixed bayonets: the two guns keeping up a brisk fire of grape shot. The Turks, attacked on all sides, and exposed to a most violent fire, were wholly broken, and fled in the greatest confusion. They were pursued to the farthest heights, where they sought refuge in the wood, and so retreated over the mountains to Bourgos. During the attack, the fire of our gun boats placed on our right wing, was very effectual. The loss of the enemy must have been very great; for, besides a great number of killed and wounded that the Turkish cavalry carried off, we counted in the ditches, and to the place where the pursuit ceased, 257 killed. We took five prisoners. We had 27 subalterns and privates killed, and 1 staff officer, 5 superior officers, and 67 subalterns and privates wounded. Major General Wachten received a contusion in the foot by a ball."

LONDON MARKETS.—*From the London New Price Current of May* 15.

Rice—The sales are numerous, but they consist chiefly of small parcels to the trade; mid. Bengal at 11s. 6*d.*, and fine at 14s.; new Carolina 35*s.* a 37*s.*

Wool—This day 110 bags Spanish wool, fair, 10*d.* to 1s. 3½*d.*; 52 bags German wool, common, 10*d.* to 1*s.* 8*d.*; three bags Merino wool, 6½*d.*

LIVERPOOL MARKET—*May* 16. *Cotton*—The import this week is 23,540 bags, and the sales reach 21,640 bags, including one thousand two hundred Boweds and Orleans taken on speculation, and 150 Pernams for export, at a decline on the Surats at public sale of ¼*d.* per lb., and at last week's rates of other descriptions of cotton, viz. 580 Sea Islands at 9*d.* to 13*d.*; 250 Stained do. at 4¼*d.* to 8*d.*; 7180 Boweds at 4¾*d.* to 6 1-8*d.*; 3070 Orleans at 5 1-8*d.* to 7¼*d.*

The sales of ashes are limited to 80 bbls. Pots; in Pearls no sales.

Corn Exchange.—The import of wheat and oats for last Tuesday not being extensive, and the dealers coming freely into the market, a very fair business was done, at an advance on Irish wheat of 1*d.* per 70 lbs.

Aggregate average of the six weeks which regulates duty.

Wheat.	Barley.	Oats.	Rye.	Beans.	Peas.
69*s.* 9*d.*	32*s.* 5*d.*	21*s.* 10*d.*	33*s.* 11*d.*	34*s.* 3*d.*	34*s.* 6*d.*
Duty now payable on Foreign Corn.					
13*s.* 8*d.*	13*s.* 10*d.*	15*s.* 3*d.*	19*s.* 9*d.*	18*s.* 3*d.*	18*s.* 3*d*

Prices Current in Boston, June 12.

Apples, best, bbl. $.3.00 a 5.00. *Beans*, white, bushel 1.00 a 1.37. *Beef*, mess, bbl. 10.25 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 7.00 a 7.12; Genesee, 7.00 a 7.50; Rye, best, —. *Grain*, Corn, bush. .56 a 60; Rye, .70 a .80; Barley .67; Oats .40 a .42. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 16.00 a 16.50; Navy, mess, 13.00 a 13.50; Cargo, No. 1, 13.00 a 13.25. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel -----. *Wool*, Merino, full blood, washed, .30 a .37; do. do. unwashed, .20 a .23; do. three-fourths washed, .25 *a* .30, do. half and quarter washed, .22 a .24; Native, washed .20 a .22; Pulled, Lambs', 1st sort, .35 a 37; do. 2d sort, .22 a .25; do. spinning, 1st sort, 27 a .30.

Prices Current in New York, June 13.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .10 a .12; Upland, .8½ a .10½; Alabama, .9 a 11. *Cotton Bagging*, Hemp .19 a .21; Flax .15 a .16. *Flax*, American 8 a 9. *Flaxseed*, rough, tierce ——; clean ——; *Flour*, N.York, bbl. 6.75 a ——; Canal 6.75 a 7.12½; Baltimore Howard st. 6.87½ a 7.00; Richmond city mills, —· country, 6.50 a 6.62½; Alexandria, 6.75 a —; Fredericksburg 6.50 a 6.62½; Petersburg, 6.62½ a 6.75; Rye Flour, 3.75 a 4.00; Indian Meal, per bbl. 2.37½ a 2.50; per hhd. 13.00 a 13.25. *Grain*, Wheat, Virginia ——; N.Carolina, —— a 1.37½; Rye, North, 70; Corn, Yellow, North, .55 a .56; Barley, .54 a .55; Oats, South and North, .35 a .40; Peas, white, dry 7 bu. —; Beans, 7 bu. 8.00 a 8.50. *Provisions*, Beef, mess 10.00 a 10.50; prime 7.75 a 8.25; cargo 6.00. Butter, N. York, —- a —; shipping, .8 a .11; Lard, .5 a .6; Pork, mess 12.50 a 12.87½; prime 9.75 a 10.00, cargo 9.00 a ——; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* .2½ a .3. *Tobacco*, Virginia .3½ a .5½ a .6½; Kentucky, .3¼ a 5¼ a .6½. *Wool*, Merino, American fleece, .32 a .36; Pulled, .32 a .35; common, .18 a .25; Pulled, spinning, .18 a .33.

Prices Current in Philadelphia, June 16.

Bees-wax, yellow .22 a .23; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .8 a .8½, No. 2, .5 a .6; *Cotton*, New Orleans .11 a .13, Upland 9. a .10½, Tennessee 9. a .10½, Alabama 9. a 10½; *Feathers*, South. .32 a .33, West. .30 a .31; *Flax* .7½ a .8. *Flour*, super. 6.00 a 6.62, fine 6.25; Rye 3.62 a 3.75; Cornmeal, hds. 11.50 a ——, bls. 2.25 a ——; *Flaxseed*, cask —— a ——; bu. 1.35; *Grain*, Wheat 1.25 a 1.35; Rye .60 a.65, Corn l. c. white, .44 a .46, l. c. yellow, .47 a .48, u. c. round, .50 a .51; Oats .30 a .40, Barley, Pa. —- a .—; do. East. .55 a .60; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western .8 a .9; *Hemp*, 210; *Lard*, .5 a .8; *Oil*, linseed, .80; *Pork*, mess, 13.00 a 13.25, prime 11.50 a 12, cargo 10.00 a 10.25; *Rice*, 2.75 a 3.25; *Tobacco*, Kentucky .3½ a .6, Virginia .4½ a .7; *Wool*, common washed lb. .28 a .30, half blood .30 a .33, three quarters blood .33 a .35, full blood .36 a .40; unwashed, generally 10 cents less, according to quality.

McKIM'S GENUINE CALCINED MAGNESIA.

The proprietors of the Maryland Chemical Works, can with confidence, recommend this article to the public as *pure*, and equal in all respects to any of the imported article, and at about *one half the price*; it is carefully put up in convenient sized bottles, and is offered for sale by all the Druggists in the city, and at their Warehouse No. 69 South street, Baltimore.

The subscriber will resume the *Practice of Law* in the County court of Fauquier, Va. Due attention will be paid to all such matters in the line of his profession as may be confided to his management.

B. WARD.

[N. B. Mr. Ward makes collections also in Fairfax, Loudon, Prince William, and Culpepper counties, and is worthy of all reliance.]

ALMANAC.

1829. June.	Sun. Rises.	Sun. Sets.	Length of days.	Moon Rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 20	4 37	7 23	14 46	10 10
Sunday,........ 21	4 37	7 23	14 46	10 50
Monday,....... 22	4 37	7 23	14 46	11 27
Tuesday,...... 23	4 37	7 23	14 46	morn.
Wednesday,.. 24	4 37	7 23	14 46	0 3
Thursday,..... 25	4 37	7 23	14 46	0 39
Friday,......... 26	4 37	7 23	14 46	1 17

Moon—Last Quarter, 23d, 11 h. 33 m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson & Co., Commission Merchants and Planters' Agents.

TOBACCO.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 6.00—red, 5.00 *a* 8.00—fine red, 8.00 *a* 10.00, for wrapping—Ohio, common, 5.00 *a* 8.50—good red 8.00 *a* 12.00—fine yellow 10.00 *a* 20.00—Rappahannock, 4.00 *a* 6.00—Kentucky, common 5.00 *a* 7.00—wrapping, 6.00 *a* 8.00.

FLOUR—best white wheat family, $7.50 *a* 8.00*—superfine Howard-st. 6.25 *a* 6.37½; city mills, 6.00 *a* —Susquehanna, 6.00—CORN MEAL, bbl. 2.50—GRAIN, best red wheat, 1.10 *a* 1.25—best white do. 1.20 *a* 1.35—ord. to good, .60 *a* 1.10—CORN, white, 40. *a* .42; yellow, .42 *a* .44—RYE, .53 *a* .55—OATS, .28 *a* .32—BEANS, 1.00 *a* 1.25—PEAS, .55 *a* .60—CLOVER SEED, 3.50 *a* 4.50—TIMOTHY, 2 *a* 2.50—ORCHARD GRASS, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a*.50 lb.—BARLEY, .45 *a*.50—FLAXSEED, 1.00—COTTON, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alab. .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Geo. .9 *a* .12—WHISKEY, hhds. 1st pf. .23—in bbls. .24 *a* 25—WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .26 *a* .30—full do. .30 *a* .50, accord'g to qual.—HEMP, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 4.00 *a* 4.12½; No. 2, 3.50 *a* 3.75—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—BACON, hams, Baltimore cured, .10 *a* 11; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .29—Plaster Paris, cargo price per ton, $3.50, ground, 1.25 bbl.—Prime Beef on the hoof, $5.50 *a* $6.25.

*Eight dollars by the single barrel, for Ellicotts' Patapsco white wheat family flour.

MARKETING.—Strawberries, 6¼ *a* 12½ per quart; Cherries, 12½ per qt.; Peas, 12½ *a* 25 per peck; Squabs, 18¾; Young Chickens, 2.00 *a* 2.50 per doz.; Butter, lb. .31¼ *a* 37½; Eggs, .10 *a* .11; Potatoes, Irish, bush. 1.00 *a*——; Chickens, doz. 2 *a* 3.00; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .81¼; *a* 1.00 Sausages, lb. .8; Pork, 5.50 *a* 6.00 cwt.

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AGRICULTURE.

A NEW TREATISE UPON WOOL AND SHEEP.

Translated from the French by the Editor of the American Farmer.

(Continued from page 106.)

Section 4.

Of the relation between the properties of Wool, and the condition of the skin and of the body of the Sheep.

The indirect and remote causes which influence the properties of bodies, being for the most part concealed or imperceptible, we must in practice content ourselves with the study of those which are more immediate—Thus for example, if the fine thread produced by the art of the gold wire drawer is striking from its great tenuity and regularity, the conclusion very naturally follows that it is to be attributed to the minuteness of the perforations in the iron plate through which it has passed, and this conjecture is not the less firm from our being incapable of estimating the causes rendering the one ductile, and the other sufficiently hard to cause its reduction.

In applying this illustration to the study of wool, we will endeavour to explain the relations which exist between its properties, and the condition of the skin and body of the sheep.

Anatomists teach us that the tegument composed of three distinct parts, the true skin,* (*le cuir,*) mucous net work, (*le réseau muqueux,*) and epidermis, (*l'épiderme*) rests upon a cellular membrane within the interstices of which the fat is secreted, or in other words, the superabundant and oily parts of the food is deposited in the cells of this membrane. We have already attempted to shew that it is in this structure, or adipose membrane, that the bulbs or roots of the hair or wool, are for the most implanted. These bulbs are nourished through the medium of delicate vessels which ramify through the fatty membrane and thence derive the materials necessary to the formation and growth of the hair--and when these materials are superabundant, or in excess, the porous tissue of the wool serves for their elimination. The bulb then is to be considered the matrix from which the hair springs; in its growth it passes through the true skin and epidermis, deriving from this latter a covering for a small extent. Continuing to grow it displays itself to our observation in the condition of wool. So far, then, anatomy reveals to us the organization proper to the growth of wool; and could we be initiated into the inscrutable laws which regulate this mechanism we should experience no difficulty in indicating the circumstances upon which the very marked differences in its fibre depend. But through the veil which conceals from us these mysteries, we cannot but consider the probable effect of the quantity of matter which diffuses itself in, or overflows (*sèpanche*) the bulb or reservoir where the fibre takes root, the circumstances of the skin which influence the configuration of the mould of this fibre, and finally search, in this study, the explanation of the effects which experience points out to us.

Amongst these effects let us regard those which appear to us most worthy of attention.

Of two lambs of the same race, and presenting the same quality of wool; the one has been pushed to an excess of *embonpoint* by a nourishment too abundant, the other has been reared according to a regime, or mode of treatment, justly proportioned to its necessities.—After the first shearing, we have remarked in regard to the former, that its wool has a tendency to become coarse, to grow long, to lose its primitive *character*, its suppleness, and consequently a portion of its softness, as well as the kinds of elasticity which depend upon this suppleness. At the second and the third shearing these effects become more and more evident. The other animal, on the contrary, maintains all its primitive qualities. The same experiment being prolonged to the second and third generation, and beyond that, it becomes almost impossible to recognize any similitude between them. These incontestible results, which are proved to us by every day's experience, appear to us to be explained by the following theory: The abundance of fat augments the volume of the animal, and ought consequently to distend and dilate the flexible envelope of this volume, that is to say, the skin; all the pores with which this skin is pierced will be enlarged; the openings specially provided for the passage, and the configuration of the fibre will also be enlarged; the matter out of which the wool is to be composed, and which these openings receive, being yet soft, will arrive at these openings from the bulb in greater abundance, and will there develop itself the more, in the same manner as melted lead forms a larger bullet in a large mould than in a smaller one:—*Thence the fibre will be coarser*—(*dès-lors ce brin grossira.*)

The bulb, of which the reservoir is supported in the fatty membrane, will appropriate to itself a greater quantity of the juices, and will supply them in superabundance to the fibre:—*Thence this fibre will become longer*—(*dès-lors ce brin sallongera.*)

It is natural to suppose that the form of the cutaneous canal which contains the fibre will be enlarged by the dilation that the skin will undergo, and moreover by the superabundance of rich matter. The mould of the wool being enlarged, its sinuosities will not be so marked, and the fibre, which these sinuosities would render more or less undulated, will have its undulations in part effaced:—*it will be changed then in its character.*

In fine we may comprehend that the thickening of the fibre, or whatever makes it coarser, will alter necessarily its suppleness and all the qualities which depend on and are connected with it.

The preceding reasonings do not apply only to the example of the two lambs that have been submitted to different regimens; they will equally apply to every and all kinds of wool-bearing animals, that art, or nature itself has endowed with large size, gross forms, and a high degree of *embonpoint*, or fatness.

On the other hand, an animal reduced by an insufficiency of nourishment to a condition of meagerness and decay in its fleece, presents to our examination effects entirely opposed to those which we have observed above. The wool, it is true, seems to grow finer, but it is feeble and attains not its natural length. It becomes white and dry, it loses its suppleness and its other qualities; in fine, if it does not fall off of itself, it offers in its length inequalities of strength which essentially injure it for use.—In fact, all meagerness other than that which is the habitude of the body, healthy and in good condition, diminishes beyond measure the fatty provision of the cellular membrane: The bulb has thus been deprived of a part of its juices, for which it had necessity to form the fibre of the wool, and suitably nourish it. Hence it is not astonishing that the wool should be short and feeble.

There has been evidently a diminution in the evacuation by the pores of the skin, and in the production of *greasiness* (*suint*:) and from that cause more whiteness and dryness of the wool; from that cause also its less suppleness, and the alteration of other qualities connected with suppleness. The skin which envelopes the body is contracted in proportion as the volume of the body has diminished, and from it has resulted the shrinking of the pores and of the mould of the fibre. If the circumstances which deprive this fibre of its nourishment are not ameliorated, the passage provided for it shrinking, and its strength diminishing more and more, it gets smaller in a degree that it breaks of itself, or detaches itself from the body by its own weight. If the nourishment is supplied and the amelioration takes place before this separation has ensued, the fibre will have been able to resume its diameter and its strength; but composed then of two portions, feebly connected with each other, it will present an inequality of strength which will essentially injure it for all useful purposes. It is this condition of wool which we frequently remark in the case of animals which have experienced maladies, or which have been reduced by a defect of nourishment, to a condition of great meagerness, or yet more which have been subjected to sudden and marked transitions from a good to a bad regimen, and from an insufficient regimen to one of abundant nourishment. One sees thus that if the excess of *embonpoint* or fatness, has a pernicious influence on the properties of wool, that of a state of meagerness, caused by the want of nourishment, or by sickness, is yet more hurtful.

Let us pass now to another observation.

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* [The existence of the true skin (*chorion, cutis vera-dermis,*) and epidermis, or cuticle, as constituents of the coverings of the body of man and the higher classes of animals, is admitted on all hands by anatomists. Our author in enumerating a third lamina (mucus net work, corpus mucosum, Malpighianum) has adopted the opinion of Malpighi. Malpighi describes the mucous net work as a soft stratum of matter between the true skin and epidermis. It is in this matter that the colour so characteristic of nations is supposed to reside, and the difference in the complexion of the fair Circassian and Æthiopian, the yellow hue of the natives of China, and copper colour of the aboriginal American, is explained by some physiologists on the supposed presence of this matter. Bichat and Chaussier deny, however, that any such mucous layer is to be found.

The chorion is properly the skin, so far as respects its body or thickness, it is a dense fibrous net work, and when condensed in the process of tanning, forms leather. The Epidermis is the outermost layer; when separated from the true skin it appears as a transparent lamina; as it is void of sensibility, and destitute of vascularity, it cannot be considered as possessing the endowments of life. It seems to be a secretion from the true skin, formed for its protection, in order to hinder the too direct contact of exterior bodies. It is subject to incessant wear, and often exfoliates in large scales. It may readily be separated from the true skin, after maceration in water; in the human body it is rendered particularly evident in the case of blisters. In the horse, and in some birds, as the parrot species, it falls off in powder, and in some of the reptiles it comes away in an entire sheath, as in the case of the snake. There is one organic endowment possessed by the skin, which our author seems to have overlooked; it is the sebaceous glands; they are to be found in all animals of warm blood, who have the cells of the adipose web filled with fat. They are minute, membranous vesicles, and secrete from the blood an oily fluid which serves to keep the skin soft and pliant. It is said that the characteristic smell of animals is referrible to this secretion, as the negro for example.

In the text we have it asserted that when the oily materials are superabundant that they are discharged through the porous tissue of the wool.—We are not aware that anatomists have ever succeeded in pointing out any thing like exhalent or porous orifices in wool or hair; we are told by them that hair is tubular, the central part is called the pith or medulla, whilst the external part is somewhat corneous or horny, and is evidently filamentous. These filaments uniformly point towards the distal extremity, and are most evident towards the base of the hair. It is upon this structure that the matting and consolidation of hair in the process of felting depends. The oil or grease which is found on hair or wool cannot be considered as directly transuding from it. It is on the contrary the product of the sebaceous glands which are destined by nature to be the instruments of this oily secretion; these glands are found in all animals inhabiting the surface of the earth. In some quadrupeds we find them agglomerated, constituting a single glandular body near the anus; this is the case in the castor, civet, and musk-deer. In birds we find this same compound gland, on the rump, and it is from this source that they derive the oil with which they anoint their plumage. *Ed. Amer. Far.*]

The degree of fineness of the fibre is in inverse proportion to the thickness of the skin.—There is an important fact which is observed not only in the sheep of the same or different races, but in the same individual according to the divers parts of the carcass. That rule is, without doubt, subject to some exceptions, although we do not find any other than the very constant one presented by the skin *of the belly and testicles,* which, though always very thin, does not produce, however, the finest wool; but we will endeavour presently to give a reason for that exception. Besides, no principle seems to us more certain, and we would be disposed to reduce the art of bringing wool to perfection to that of giving to the race the habit of a skin thin and equally thin in each part of the carcass.

If we ask, indeed, of a leather-dresser what parts of the skin of the sheep are the thickest, he will answer, the *knee*, the *forehead*, the *tail*, the *buttocks, the upper part of the neck*, and *the lower* when a *dew-lap* exists; *the thigh,* and at last *the back.* Now, if we ask of a manager of flocks what parts of the fleece are the most difficult to make fine, he will successively assign the same parts which the leather dresser had indicated. It may be added that that race of indigenous sheep whose skin is almost three times as thick as those of merinos, and that which is also worthy of remark, is that in general the parts of the body where the wool is the coarsest, are precisely those which not only present the greatest thickness of skin but also the greatest abundance of fat.

1. This corroborates what we have said before, touching the influence of *embonpoint* or fat, on the coarseness of the fibre.

We have observed that this principle which we consider as so well established, is liable to exceptions, and especially to that which results from the inferiority of the wool that is gathered upon the belly of the sheep in spite of the thinness of the skin on that part of the body. Yet we do not believe that one can infer from such an exception any well founded reason to deny the existence of the general principle. In fact, if the wool of the belly were not exposed to the continual rumpling (*froissement*) of the ground or floor (*l'aire*) upon which the sheep reposes, and to the pernicious effects of the humidity produced by the urine and excrements, it would perhaps be the finest part of the fleece; for the lower part of the sides, which generally yields the finest locks, is the part which approaches nearest the belly. This supposition appears so much the more admissible, as by means of straw litter, very abundant and very dry, we sometimes find the fleeces of our merinos as fine on the belly as on the shoulder. Moreover, this skin, which envelopes the belly, is destined by its daily functions to be much more dilated than on any other part of the body, and this dilation must have, as we have seen, great influence in augmenting the coarseness of the fibre.

If we could yet further extend our observations, we should find that the fine wool succeeds to the coarse when the skin becomes thinner, (*s'amincit;*) that on the contrary, the coarse wool succeeds the fine when the skin thickens, and that in a word. that hair or wool of the worst quality takes place of good wool when the skin becomes callous.

In fact in the successive progress of refining and crossing, it is evident that the wool perfects itself as fast as the skin becomes thinner, just as we see that in place of advancing in the road to perfection the wool degenerates in fineness in proportion as the skin thickens. As to hair or bad wool, we see it takes the place of good wool in every place where the skin becomes hard by the effect of external circumstances; thus, with the young lamb, the knee and the forehead are often covered with wool, but the skin of the knee becomes quickly thick and callous, by the collision (*froissement*) that it undergoes whenever the animal kneels to lie down; and that of the forehead, with the rams especially, becomes hardened in their frequent combats; so it is rarely that the knee of a grown beast carries any thing but hair and that the wool of the forehead of the ram is not coarse and worthless.

Hair (*jarreuse*) takes the place also of wool upon *scars*, (*cicatrices*) which, according to anatomists, are nothing but collosities, and one may remark in this change of wool into hair not only the thickening of the tube but also a complete alteration of its *character* or *nature*.

The facts that we have exposed flowing from the same principle sufficiently confirm the practical observation which has served us from the beginning, and according to which we have believed ourselves justified in affirming that the degree of fineness in the fibre of the wool is in an inverse proportion to the thickness of the skin. It is necessary now to have recourse to them once more to aid us in explaining these facts; we will then repeat what has been said upon the mechanism of the formation of the fibre, and we will reason thus:

'The thicker the skin which the fibre will have to get through at its birth the greater will be the obstacle it will have to overcome. It cannot surmount that, but in proportion to the strength with which nature shall have endowed it. Now this strength it will draw from the abundance of the juices destined to nourish it, and it will consist in its thickness and consistency. It will be seen then that the fibre which will have only to penetrate a very thin skin, will content itself with little nourishment at its root and will develop itself with little effort, whilst the fibre which has to pierce through a thicker skin, will not emanate from its bulb but when the accumulation of its nourishing juices shall have proportioned its strength to that of the barrier which is opposed to it, and it will shew itself so much the coarser, as the resistance to its passage will have been greater; in such a degree that if it is reduced to the necessity of coming to the light, through a skin callous or hardened by some accidental circumstances it will be obliged to clothe itself with a coat thick and hard which forms the distinctive character of *hair* or very coarse wool, (*jarre.*) Thus, whenever one sees wool implanted in a skin more or less thick, we may expect to find it more or less destitute of fineness, and of all the qualities which spring from fineness.

End of Section 4—Section 5 in our next.

["*Suint*" and "*surge,*" these two words occurred first in part 1. page 89, and gave us then as now some perplexity, but we believe we begin to understand them in the page mentioned, we rendered them by the words *greasiness "le suint"* and *surge "le surge.*" The first dissolvable in cold water—the latter only by warm water, to which certain ingredients, and amongst them grease must be united.—Further investigation leads us to add that "*suint,*" is a French technical term, and though we have no English word precisely answering to it, it is we believe what is usually termed *yolk*. It is in other words the oily matter, with which wool is imbued, derived from the sebaceous glands of the skin of sheep, and which, according to Vauquelin, constitutes from 35 to 40 per cent. of its weight.—This oily matter is composed of margarate (salt formed by the combination of margaric acid, with a salifiable base, the margaric acid is obtained by subjecting fat, to the action of alkali) acetate, carbonate and hydrochlorate of potash, with a peculiar odorous animal substance. To make the case, and our meaning still clearer, perhaps we might assume that *surge* is the greasiness which remains in wool after being washed and divested of its yolk, "*le suint,*" and constitutes an essential part of the wool itself, and *suint*, the yolk, is that external greasiness which exudes from the body and attaches to the wool in its unwashed state.—*Ed. American Farme.*]

SKETCH OF BEDFORD COUNTY, PENNSYLVANIA.

(Continued from p. 108)

50. Oursheep are coarse woolled, but some of them are mixed with the Merino, which has greatly improved their fleece. No pains have been taken to improve the breed of this valuable and much neglected animal. This is in part to be attributed to the vascillating policy of the government, and the instability of the administration. For one presidential term, we have an administration, friendly to domestic industry, and desirous of promoting and strengthening our own resources. Before their beneficial system of policy can be developed and matured, another administration of doubtful policy throws us on the ocean of conjecture, and we fear to strain our resources or involve ourselves in debt, for a species of property which an act of Congress may render valueless. If our government possessed the solidity of some others, we could afford to introduce among ourselves, the Saxon and improved English breeds, or obtain a cross of the Caramanian, but in this fluctuating state of things, we must wear out our lives and our lands with the eternal plough for permission to live.

52. They are short woolled, and they are uniformly emasculated.

53. I have never known a ram slaughtered, wethers may be.

54. Averaged at 50 lbs.; and ewes at 40 lbs. The fleece weighs 3 lbs.

55. We slaughter or sell our sheep to the butcher, at 5 or 7 years old.

56. Sheep are sometimes fatted with oats, or wheat bran.

57, 58. Open sheds are constructed in winter, it is not the practice to fold sheep.

59, 60, 61. The dung of all the stock is collected in the barn yard. The straw not used in fodder, is thrown promiscuously with it. The cattle are foddered on it. In spring or fall it is hauled out and ploughed in.

Swine, 62 to 67. The number of hogs raised is considerable. After they are weaned, they are turned to the woods, and are seldom or never fed till the ground is frozen up. In the vicinity of the Alleghany, they will get nearly fat on beech nuts, chestnuts, and acorns. In winter they get a little corn or buckwheat, night and morning. The last of October or first of November, those intended for pork are put up in a close pen, which is never cleaned, and fed on corn, boiled rye, or buckwheat, till Christmas, when they are slaughtered; they weigh from 150 to 300.

68. Our farm horses are a mixture of all breeds, and consequently remarkable only for their capacity to endure fatigue.

69. A four horse team will haul in a wagon on the turnpike fifty hundred. The wagoners who load in Baltimore and Philadelphia for Pittsburg, charge only gross weight to Chambersburg, from thence to Pittsburg they charge nett, because the mountains begin at Chambersburg. Fourteen miles was considered a day's journey between Chambersburg and Pittsburg. They have travelled this year as high as twenty-four. Two miles an hour used to be considered good wagoning; they travel more than that now. Though four horses can haul 5000, on the turnpike, 3000 is a good load on our county and private roads. There are no two horse carts in the county! The country is unfavourable to the use of carts, because in descending our ridges and mountains, the shafts press too heavy on the horse's back, and galls it, and it is too hard on his shoulders and fore legs, and besides it is absolutely necessary to lock, which cannot be done in a cart. Hence gigs are in little use, and dearbons supply their place.

71. The custom is to feed and hitch up at or before sun rise in the plough, work till 7 o'clock, break-

fast and feed till eight, hitch up and work till 11 o'clock, feed and dine till 1 o'clock, and work till sun down. It is found however that the horses can do better if not hitched up till after breakfast, and will do quite as much work in a season. The number of hours which a horse works on a farm in a day cannot be stated at less than nine.

72. Oxen are decidedly preferable to horses on a farm on many accounts. They can and ought to be broke at two years old. From thence to the age of three, they more than earn their feed. From thence to four, they can haul logs and rails, plough and harrow, indeed do all the drudgery of the farm. From thence till 10, a good yoke of oxen can draw more than three horses, and they take a steadier, heavier drag up hill than horses. At any time from 7 to 10 they may be put up and fed, and sold to the butcher at a greater price, and more profit than if sold at an earlier age, provided they have been worked. They are not subject to the maladies and casualities of horses. More horses die from folding to the age of ten, than cattle from calving to the same age. The bold, fiery, impatient spirit of a horse subjects him to a thousand dangers of life and limb, even when at large in the field from which the moderate, grave, patient, circumspect ox is exempt. But when the noble animal is backed by a thoughtless, inexperienced or brutal owner, or driven in a wagon or plough, by a scoundrel hireling, he is broke down in limb, wind and tendon; he becomes ever after a miserable mass of existence, joyless in himself and a burthen to his owner.

The gears of an ox cost comparatively nothing. From the time he is calved till seven years old he is improving in value. He is then of prime age for slaughter. His labour has paid his keeping twenty times over. After his day's toil is ended he will soon fill himself in a cloverfield, and repose contented till morning. He may be hitched up at breakfast and work till dinner. A little cut straw mixed with chopt oats or corn, will enable him to pursue his toil till night, when he seeks his field again and troubles his driver no more. Should he lose an eye his value is not diminished. Should a leg be broke or a joint dislocated, he can be fatted and sold at as high a price as if no injury had been sustained. If a farmer raises stock instead of keeping a pack of idle brutes about him for 6 or 7 years, that consume two or three times more than they sell for, let him yoke them up, put his boys to plough, harrow, haul rails, &c. and he converts them into productive valuable animals which he can convert into cash at any moment, after having more than cleared their cost by their labour.

But we cannot work oxen in winter, because we cannot get them shod. Our blacksmiths do not know how, and will not learn because they think it degrading to shoe an ox. The Green mountain boys and New Yorkers, however think nothing of crossing Champlain on the ice, with heavy loads drawn by large oxen well shod, and they think it not at all disreputable to pay their debts, enrich their lands and grow wealthy by exchanging horse labour for ox labour.

If a horse loses an eye or gets his wind broke, his value is materially diminished. If he breaks a bone or dislocates a joint, his value is estimated by what the tanner will give for his hide, and the labour of taking it off is to be deducted.

A good yoke of lean oxen may be had for $40; a pair of good young horses will cost $200. The gears of oxen, a log chain and yoke, cost about $6, and with care will last a life without mending. The gears of a pair of horses cannot be had for less than $15. They require constant mending, and in a few years must be renewed. A horse is at his prime at seven years old, and fails at ten, and you can't eat him. For horses the oat-bin and chopt-chest are in eternal requisition. Oats or corn morning, noon and night, or chopt rye morning, noon and night. If a horse is worked and not well fed, in a few days this bold, active, powerful animal is transformed into a locomotive bag of bones, and in a few days more, that bag of bones is reduced to an inanimate carrion, which every living thing but a starving wolf would loathe. To supply the eternal demand for grain which the constitution of a horse renders necessary, the man must go, the plough must go, the harrow must go, the horse himself must go, the blacksmith must be paid, the harness maker must be paid, the tax gatherer must be paid, the scythe must go, the rake must go, the wagon must go to haul in the harvest, the flail must go, the fan must go, the man, horse and bag must go to mill, the mill must go, the miller's toll-dish must go for his legal tenth and his illegal tenth, the boy must come back from mill, the cutting knife must go, the horses' grinders must go, a year's labour goes, the owner goes to jail, the children go to service, and the wife goes to distraction or the grave. In this estimate I have omitted the three tons of hay, which a horse will eat or tramp under his feet through carelessness, and he will not eat straw; and I have said nothing of the many hours which must be spent in polishing his hide with the curry-comb and brush.

The patient ox chews his clover in summer, his straw in winter, and if a nubbin of corn or the bran of your flour is given to cheer him in a cold winter's night, he thanks you for it, thrives, and pays you when dead more than you gave for him when living. The facilities therefore which oxen present to a poor man, or one in moderate circumstances commencing farming, are so great that nothing but ignorance or vanity amounting to the grossest absurdity can induce him to wish for horses. I have known many farmers who began the world with a good outfit, and who died bankrupt—from no other cause than having kept too many horses, or who have shuffled on through life with their noses to the grind-stone, till their heads were gray, and the marrow dried in their bones. This horse mania pervades the whole earth, China excepted; and the Chinese, the wisest people on the face of our planet, have long since abolished the use of horses, where men or oxen can perform the service. The Norwegians rank next, because they eat them.

There is no one circumstance which retards the population of Pennsylvania so much as the excessive multiplication of horses. They occupy thousands of acres that ought to be occupied by men. They raise the price of grain on the poor, because by consuming so much there is a corresponding increase of price, and no diminution in the price of meat. Decrease the number of horses, increase the number of oxen, look upon him with suspicion who kills a calf; grain and meat will be cheaper and population greater. This position could easily be demonstrated, but this is no place for it. I hope nevertheless the first direct tax laid by the general government will be on horses! Let it not be supposed, however, that I am desirous of proscribing our noble favourite. I am only opposed to his inordinate multiplication, because I am satisfied it conflicts with the multiplication and happiness of the human species; and as it is said that horses have no souls, and that men have souls, we certainly ought to be most desirous of propagating the animal with a soul, provided we can find out a way whereby a majority of them will not be damned. There are many uses to which the horse is peculiarly adapted, and to those uses he should be assigned and to no other, he never should be permitted to usurp the province of an ox.

The most conclusive way of settling this controversy between the horse and the ox is to ask a wise man or a wise nation this question, "Were you compelled to relinquish forever the whole tribe of horses or the entire breed of neat cattle, which would you hold on to?" Would not a wise man answer thus, "The ox requires but little care and little feed that would sustain a man; he can draw a plough or a wagon as well as a horse; when he is dead his meat furnishes sustenance to me and my family, his hide furnishes protection to my feet winter and summer, his horns are useful for many purposes, his bones produce a valuable oil, the turner will purchase them, or, I can grind them and enrich my soil, his hair is necessary in constructing my dwelling, his entrails can be converted into soap or glue, his very hoofs are valuable; I will not part with an animal, every part of which is necessary to my comfortable existence; and you may take the horse as the least valuable thing of the two, and which, as he is the principal instrument in war, so is he often the cause of war and tumult.

73, 74. Neither asses or mules are worked or bred among us.

75 to 82. We have no slaves nor do we boast of an exemption from that which it would be degradation to be subject to. Such a miserable thing as a slave, and such an arrogant thing as the master of a slave, are unknown to us. We are all free as the pure unfettered mountain air that we breathe, and we intend to continue so. Nevertheless, some wretched creatures who have escaped from their masters in the neighbouring states occasionally seek refuge here, but they are habitually dishonest and lazy.—Not one in a hundred will earn what he eats. They have a repugnance to rural occupations, and notwithstanding their dread of discovery, they resort to the towns and congregate with persons as worthless as themselves. On the whole, one white man raised in the country, is worth, one year with another, four black men raised in slavery. A white man works as well when his employer is absent as when he is with him, a negro must be eternally goaded to his work.

83 to 86, inclusive. The usual wages for a good hand, when boarding and lodging is provided, is from $5 to $7 per month: If by the day, from 31 to 37½ cents. We seldom reap our grain. It is generally cradled. The cradler gets 75 or 80 cents a day, the raker half as much, and the binder the same as a raker. Grain is seldom cut by the acre. It has been done in a few instances and then the workmen got $1 25 per acre for wheat, rye and oats.—They housed the grain and found themselves. The wagon and team was provided by the owner. For mowing an acre of meadow grass we pay 40 cents, and for clover not more than 37½. But this kind of work is usually done by the day, and then the price varies from 37½ to 50 cents per day.

87. Grain is generally threshed with the flail. If the workman is found in boarding and lodging he gets the tenth bushel all round of wheat, rye and oats; if he provides himself he gets the ninth.

88. A good hand can reap an acre of wheat in a day. They reap through, bind back and shock in the evening.

89. A good hand can cradle four acres of wheat, rye or oats, but then he must have his raker and binder after him. Thus there is but little difference in the expense of reaping and cradling, because a reaper usually gets 50 cents and a cradler 75 or 80 cents, and a cradler will not do much more than three reapers, and never as clean harvested.

90. An acre and an half of meadow land and two acres of clover is a day's work for a scythe.

91, 92. The number of bushels a man can thresh in a day depends on the quality of the crop. If the grain is good about eight bushels of wheat and fifteen bushels of oats.

(To be continued.)

BURNING OYSTER SHELLS.

Harewood, Montgomery Cy., Md.
J. S. Skinner: *6 mo. 11th, 1829.*

Respected Friend,—In No. 12, vol. 11, of the American Farmer, "Novice" requests some information in burning oyster shells, and the quantity generally used to the acre.

I have but little experience in this branch of husbandry, but as that little may possibly be of some use to him, it is freely communicated; having frequently, when in want of information, obtained it by a reference to the valuable pages of the Farmer.

This spring I had a kiln of about 200 bushels burnt; and although the plan adopted may not be the best, it is certainly a good one; every shell appeared to be well burnt, and at a very trifling expense, both as it regards labour and fuel.

Place two small logs, 10 feet in length, parallel to each other, and about 8 feet distant—this is to afford a free current of air under the kiln—On these make a platform of larger timber, say 12 or 15 inches diameter, and of the same length, placed so near together that the shells will not pass through—Forty bushels of shells may be spread on this course of logs; then another layer of timber, crossing the first, and so on alternately, shells and fuel, until the height renders it inconvenient.

After two or three courses of logs, the size of the fuel may be gradually diminished until the whole is completed. Any refuse wood, if of sufficient size, will answer the purpose after the foundation is made—stumps which are always an incumbrance to the land, make very good, with a log or two on the outside to steady the kiln.—Two yoke of oxen and a suitable chain, without digging round them, will easily remove a stump that would otherwise remain for years. As the corners are generally consumed first, about four logs aside should be set on end, and resting against the top of the kiln—this binds the whole together, and prevents the light fuel from falling off. Three hundred bushels may be burnt in a kiln of this size in about 12 hours.

I have used at the rate of 30, 50, and 80 bushels to the acre—all with evident advantage; but my experience is too limited to say which quantity is best.

Four years since I had a piece of land well manured, say twenty-five ox-cart loads to the acre: adjoining, and extending through the field, inferior stone lime was spread at the rate of fifty bushels to the acre—not having sufficient manure to cover the remainder of the field, a space was left next the lime, without any dressing. This was a preparation for wheat, and the manured part yielded much the best. The succeeding crop was red clover and orchard grass (Dactylis Glomerata)—here the yield was also rather in favour of the manure: but the third season the limed part was decidedly the best, and continued so. When the experiment was made, stakes were used to mark exactly the extent of the different dressings—they are no longer necessary, as the growth of white clover, alone, shews plainly how far the lime was spread on each side. The soil clayey, and much exhausted by injudicious cultivation.

My practice now is, to spread the lime on land intended for corn, after ploughing and once harrowing; a second harrowing is necessary before planting; and this, together with cultivating the crop, will mix the lime thoroughly with the soil. Some improvement may be observed in the corn; but the succeeding crops of small grain and grass are greatly benefitted.

There are various modes of using lime on land—some farmers prefer spreading it on the sod *previous* to ploughing; and others, a top dressing on grass lands. I have seen it extensively used both ways, but I believe the method I recommend is most generally preferred. Perhaps some one experienced in this branch of husbandry may be induced to favor us with a communication on the subject.

Respectfully thy friend, E. S. Jr.

WILD RICE.

Mr. J. S. Skinner: *June 10th*, 1829.

Mr. Darby, the geographer, says "the most valuable vegetable production of Michigan, and the north west territories, is the Wild Rice, (zinzania aquatica.) It grows abundantly in the marshes, ponds, lakes and rivers of these territories, and exists upon the streams and lakes, in a greater or less quantity from Louisiana to the arctic circle."

See American Farmer, Vol. 7, *p.* 204.

This is certainly a most valuable grain and richly deserving the most particular attention of the citizens of the United States. One of its chief excellencies appears to be that it needs no cultivation. And from what we learn of the wild rice that grows on the shores of Lake Superior (and which we take to be the same) it is probably not inferior to that which is cultivated in the southern states.

It is most earnestly recommended to the notice of the citizens of the Atlantic states, residing on tide water, and on ponds and lakes, abounding in marsh.

It is daily becoming an object of greater interest in domestic economy, and would be a happy exchange for the wild-oats and other coarse grasses, which now form almost the only production of our marsh lands: yeilding nothing for the support of man, and affording but an indifferent hay for cattle.

As it grows spontaneously "from Louisiana to the arctic circle," it must, of course, embrace all our latitudes, and would probably succeed.—In which case we should obtain, without any other trouble than the mere labour of harvesting it, a crop rivaling, in quality and quantity, that which is now produced by a laborious and unhealthy cultivation in the southern states. It would form a source of wealth to its owners, little, if any, inferior to the indigo, cotton and sugar of the south. It is certainly richly deserving an experiment. And it can, no doubt, be readily procured through the interest of the war office, by the Secretary's drawing the attention of our Indian agents and military commanders, at our western posts to the subject. Indeed, it would seem to be an object of such national importance as well to merit the particular notice of the federal government. A Subscriber.

EARLY YELLOW WHEAT.

Fairfax county, Va., June 8th 1829.

Mr. Skinner:

I enclose you a few heads of the early yellow wheat which is now ready for the scythe, and it is a very good crop; good, without any reference to the season, which you know to be a very bad one. I think I am safe in saying that it will weigh 61 or 62 pounds per bushel measure. Time only can determine what will be the fate of the latter kinds. The early Mexican is nearly ripe, and will be fully so in one week, but that is very tender and only suits dry land well protected from water. I shall seed no more of it. The blue stem gives good promise of a crop and is a very valuable latter wheat, perhaps the best we have in this part of the state. The Baltimore red-chaff resisted the winter very well, but was taken with what they call the "go-back," or in plain English, left the land, and is only to be seen in detached bunches. Is the early yellow wheat known to you or cultivated in any part of Maryland? Accident put me in possession of a few bushels the preceding season, from which I obtained a great produce, and I now have 100 acres of it. Safety from fly is insured by it, for it is seeded late and is too hard for their use when the fly appears in the spring. The growth is good, abundantly so for harvesting, and none grow wheat for the straw. A few weeks will bring it to my threshing machine, when I shall be able to determine its value in relation to all other wheats, but I now think that I shall seed 200 bushels of it in the coming season. Should any of your obliging correspondents know any thing of this kind of wheat they would oblige me and others by giving, through your paper, such information as they have of it.

Your friend, Fairfax.

HORTICULTURE.

CULTURE OF THE GRAPE.

Hoffweyl Retreat, Georgia,
June 4, 1829.

J. S. Skinner, Esq.

Sir,—The perusal of your valuable agricultural periodical has always afforded me much gratification, and imparted to my mind some theoretical information concerning the pleasing and delightful employment of tilling the earth. But, notwithstanding I have been a constant reader of your Farmer for two years, I must confess my farm has undergone few improvements, consequently the benefits resulting have not been of much practical advantage. I now have the ninth volume, neatly bound, lying before me, and I must say, if any one article therein has paid me for my year's subscription, it is the letter of Calvin Jones on the method of selecting seed corn.—His method, taken originally from Joseph Cooper, of New Jersey, was, to go into the field, after the corn was fully matured, and select those ears that grew on stalks bearing two or more ears of corn. Last year I gave the method a fair experiment; I had two fields adjoining, of the same description of land, though with this difference: I planted my select corn in the field on which a crop of cotton had been grown the previous year, whilst the other field was a stubble. The stubble field produced a large and tall stalk with very seldom more than one ear of corn—the other field yielded me two ears nearly as often as the stubble field failed to produce more than one ear, and what was remarkable, the stalk of the select corn was generally small. The idea being advanced to me by my neighbour, last fall I selected only the top ear for my present crop, having observed the top ear was generally best.

But, Mr. Editor, since I have commenced the propagation of a vineyard, I must make a few inquiries of some of your experienced and worthy vignerons, who are willing to cast their mite into the fund of horticultural knowledge.

I live in the interior of our state, within a few miles of the supposed central spot of Georgia, between the seat of government and Macon, a new town of note, where a large portion of the staple commodities are disposed of, and from whence our farmers procure their necessaries. Macon is built on either side of the Ochmulgee, a navigable river for pole and steamboats.

The land on my farm, as it is generally throughout this section of the country, is of the mulatto quality. The surface soil of the site, that I have chosen for my vineyard is of a tolerably dark mulatto mixed with sand; the subsoil is somewhat of a rotten nature—not overly stiff—being mixed with a small portion of gravel. A little below this situation, not more than fifty yards, is my nursery containing vines a little over a year old. The spot is rich, having been manured, but the soil is not light, not even the surface soil; notwithstanding they are the finest vines I ever saw of the same age.

Now, Mr. Editor, some vignerons would object to soil of this description. I remember the expression of an eminent writer in your paper, that the vine would do well on any soils but a stiff clay. I am of the same opinion. Though to prevent error, I will say that my opinion is not incontrovertible authority, because my experience is very limited. However, as there is no harm in expressing my opinion, and as it may cause some one skilled in the cultivation of the vine, to take up his pen to enrich your columns with dissertations, flowing from a fountain of wisdom, I will proceed with the remark—which is, that vines planted on such soils as I have described to you in the situation of my vineyard, or in fact on any soil but the stiffest clay, should not be planted deeper than about sixteen inches—but it matters not how large the hole be dug, even if it be five feet square, as the larger the better—and it no doubt would be highly advantageous that these holes should be filled with very rich loamy earth, mixing a little gravel therewith.

And now, Mr. Editor, by way of concluding my simple remarks, that are barren and unproductive of practical knowledge in the cultivation of the grapevine, I will express my greatest objections to entering fully into the culture of that most valuable of all vines known to me. Though we may succeed in growing the vine, and ripening delicious fruit, yet the late spring frost may come and lay low every prospect, as it has in some little measure this spring —but more particularly as it did last year. What may we expect of our tender vine when large oaks and hickories are entirely killed?

I remain yours, &c. Asa B. Cook.

FROST CONDUCTOR.

J. S. Skinner, Esq. *Auburn, June 15th* 1829.

Dear Sir,—In one of the columns of the Farmer, a writer asserts the efficacy of a "Frost Conductor." I send you a few pages of a work lately published, in a note of which the writer controverts the position.

"It has been recorded that apricots have been preserved by the *Frost Conductor*, which consists of a rope of straw wound round the tree, while the lower end is immersed in a tub filled with water. The name of this apparatus, however, shews that the inventor could not have understood the *reason* of its effects; because straw is a very imperfect conductor of heat; and frost being only the result of its absence (a nullity) could not be conducted. The straw, by winding round the tree only a few times in its descent, must confine the natural warmth in a very slight degree; and, therefore, to the exhalations alone ought we to ascribe all the benefit produced by this contrivance. Indeed, without such appendage, tubs of water are found to soften* the air of cellars in winter, and to prevent the more tender vegetables from freezing."

(From the New York Evening Post.)

Floral and Horticultural Exhibition.

At the meeting last evening of the New York Horticultural Society, the display was more imposing than we have for some time witnessed. The show of roses of upwards of one hundred and fifty sorts, and other flowers, was uncommonly beautiful. The fruit and esculents in season presented, were remarkably fine. One Cauliflower weighed four pounds five ounces. Two Cucumbers, one measuring 14¾ inches, and the other 12 inches long, were presented from Mr. Law's garden. A bowl of Strawberries, in great perfection, from the garden of Commodore Chauncey, at the Navy Yard, Brooklyn; some of which measured three and one quarter inches. With such evidences before us, no one need doubt the adaptation and fertility of our soil to every species of husbandry. It is hoped that those gentlemen who have so kindly presented the society with specimens of their horticultural products, will persevere in so doing, and that others will follow so worthy an example, which cannot fail, if generally adopted, of becoming the means of collecting much information of practical utility. We subjoin the minutes of the meeting.

Meeting of the Inspecting Committee of the New York Horticultural Society, held 16th June, at Combault's Hotel, Broadway.

Mr. Wilson presented 4 heads Salad, weighing 1 lb. 8 oz, (sorts, 2 of Wilson's and 2 of Simpson's) Murray Hill.

Mr. Law, 2 heads Salad, 1 weighed 1 lb. 13 oz.; 1 do. 1 lb. 12 oz.

Two long prickly Cucumbers, 1 measured 14¾ inches, 1 do. 12 inches.

Mr. Wm. Curr, 3 Cauliflowers, weighing as follows—3 lb. 1½ oz.; 3 lb. 4 oz.; 4 lb. 5 oz.

Mr. Matthewson, 4 heads Salad, weighing as follows—1 lb. 9½ oz.; 1 lb. 14 oz.; 1 lb. 15 oz.; 1 lb. 10 oz.

Also, 6 early Carrots, weighing 8½ oz. without tops.

Mr. T. Bridgeman, 4 sorts of Beans, viz :the long pod, the early mazagan, the green nonparcil, the windsor—planted 25th February and transplanted 31st March.

T. Godey exhibited 6 early Beets, weight 1 lb. 4½ oz. without tops.

Mr. T. Coadley, quantity of Strawberries from the garden of Com. Chauncey at the Navy Yard, largest measured 3¼ inches.

Flowers.

Mr. Wm. Wilson exhibited about 50 sorts Roses from Murray Hill.

Mr. Oakley, 9 sorts and 1 Cactus Speciosa.

Mr. Neale, 1 Delphium Grandiflorum, 1 Carnation, 2 new kind of Pinks, Monthly Honey Suckle.

Mr. Prince, Proprietor of the Linnæan Botanic Garden, Flushing, exhibited about 100 sorts Roses, labelled with their respective names, comprising a number of varieties of the Moss Rose and Black Roses. Also, a specimen of

1 Arundo Donax fol. variegat.
2. Pæonia Humei, } of China.
3. ——— Fragrans, }
4. Iris ochroleuca, odorata of India, and other species.
5. Clematis alpina.
6. Amaryllis longifolia var. alba and var. rosea.
7. Rubus lasciniatus, or parsley leaved bramble.
8. Coronilla coronata and varia.
9. Lilium Philadelphicum.
10. Delphinium grandiflorum *pleno.*
11. Rosa multiflora var. alba and rubra.
12. Amaryllis equestris *pleno.*

PRINCE'S BOTANIC GARDENS.

Governor Throop, of New York State, and suite, paid a visit last week, to the celebrated Botanic Gardens of Mr. Prince, on Long Island, and were highly gratified with the splendid collection of exotic and native plants there concentrated, which is probably unsurpassed by any establishment of Europe.

The collection of Pæonies, particularly attracted attention, being in the height of their bloom, and comprising above forty varieties, obtained from China, Siberia, and other climes, and several new ones, which have been originated by the proprietor himself, and are consequently unknown to foreign collections. These gardens, now covering a space of above 40 acres, with six large hot houses, of from 50 to 80 feet in length, and 400 feet of glass frames, forms an object of great interest to travellers who may visit that section of country. In the largest hot house, Mr. Prince has introduced the mode of heating by steam, which he finds much superior to the usual mode.

Bad men are never completely happy, although possessed of every thing that this world can bestow; and good men are never completely miserable, although deprived of every thing that the world can take away.

LADIES' DEPARTMENT.

INTERESTING MARRIAGE SCENE.

Married, in Hopkinton, New Hampshire, by Eld. A. Caverno, Mr. Nathaniel Morrill, to Miss Eliza Gile, both of Hopkinton.

When the usual ceremonies were concluded, the father of the bride retired from the room, and in a few minutes returned with a new Bible in his hand, which he presented to the new married couple, and with it the following address:

"The business which has been transacted this evening, as respects you, dear children, is of no small importance. It is not like many other things transacted in this world, which may be done to-day and to-morrow may be disannulled; but this engagement is for life. The matrimonial institution by which you are bound to care for each other is of God, and what he hath joined together, he forbids man to put asunder. Both of you are young, and but a little while ago, were by the laws of God and man, bound to your earthly parents. You are freed from that obligation, and now are bound to each other by a sacred covenant that is to run parallel with the remainder of your associated days. Eliza, you have now become the wife of the man seated by you—you have taken that place where the decree of God calls upon you to be a help meet. Depend upon it, my daughter, that it will be no pleasure to your father to see you spend your time in any way that will not tend to promote the interests of your husband. I charge you therefore to be strict and faithful as the sharer of his toils and partner of his joys. And you, Nathaniel, my son, will have much care devolving upon you—you are no longer to look out for one but for both. You are to provide for your wife the necessary means for her own comfort and support, and that she may be the better prepared to administer to your own necessities. You should be extremely careful, as both of you are young, that you give your wife no occasion to doubt the reality of your affection towards her. I might cite to you many lamentable instances where the lives of young women have been made extremely wretched by the conduct of their husbands, who have but too often left them to late and unseasonable hours of the night, and whose return was rather to be dreaded than desired. This, I charge you, my son, to avoid; to shun forever that, and every thing else, which would sever your partner's affection from you.

New and unthought of duties will pour in upon you both from every quarter. Were you sensible of all your future cares and concerns that will necessarily demand your faithfulness and fortitude, you would be constrained to say, who is sufficient for these things? But the want of time and ability forbids me to lay before you all your duty—I, therefore, for your further instruction and consideration give you this invaluable, holy, and precious book, (presenting the Bible) which I beseech you my dear children to receive as the man of your counsel, and the rule of your future lives. It is the word of God, and these sacred pages contain your whole duty. The comforts you anticipate from the transaction of this evening, as you may have just reason to fear, will never be adequate to your expectations. But should you ever be so happy as to partake of the joys which this blessed book promises all those that love and obey it, you will be constrained to say that all that ever was told you, or all that you ever anticipated besides, bears no comparison to enjoyment so sublime. Then if this book is so valuable a treasure, do not wonder that your father should charge each and both of you to prize it above every thing else. Prize it above your lives; count not your lives too dear to resign in defence of it. Prize it above all your father has given you, or even above any thing that you may anticipate he will give you hereafter, or leave when he is asleep in death, and buri-

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* Pope has said,

——————"A lake behind,
Improves the keenness of the northern wind."

In winter, it would *soften its keenness;* in spring or autumn *increase its chiliness;* and in summer *improve its coolness.* The climate on our side of both lakes Erie and Ontario, is more temperate than the region three degrees to the south;—cooler in summer and less intensely cold in winter.

ed out of sight. When he is no more, and you take this holy book in your hands, remember that he gave it to you on the evening of your marriage, as a token of his greatest rrgard for your souls and your bodies; and may God grant it may prove the desired blessing to both of you for his Son's sake."
[*Morning Star.*

PERPLEXING MARRIAGES.

In an account of Kent, it is related that one Hawood had two daughters by his first wife, of which the eldest was married to John Cashick the son, and the youngest to John Cashick the father. This Cashick the father, had a daughter by his first wife, whom old Hawood married, and by her had a son; with the exception of the former wife of old Cashick, all these persons are living at Traversham in February 1650; and his second wife could say:

My father is my son, and my sister is my daughter,
I am my mother's mother, and I'm grandmother to
my brother.

To Make Ice Cream.

Three quarters of a pound of loaf sugar, one quart of cream, the whites of three eggs well beat up—mix together and simmer it on the fire until it nearly boils, then take it off and strain it, and when cold put it into the mould and churn it until it freezes. Scrape it from the sides of the mould occasionally, during the freezing process, and beat it up well with the ice cream stick. Flavour it with lemon, rose venelli, strawberries, chocolate, &c. as you like it. New milk is nearly as good as cream, and skimmed milk will do; but for the latter add the whites of two or three additional eggs.

SPORTING OLIO.

Grand Trotting Match.

The long-talked-of match between *Rattler*, the American horse, and *Miss Turner*, the Welsh mare, for 400 sovereigns, was decided on Saturday week, over 10 miles of ground, between Cambridge and Godmanchester, commencing at the second milestone from Cambridge. This was the first occasion on which the merits of Rattler had been brought into action in this country, although he had won all his matches in America. He gave the mare a minute at starting, which was about equivalent to 600 yards, but overtook her at the end of 4 miles. At the close of the 10th mile the horse was full 60 yards in front, having completed the distance in 30 minutes and 40 seconds! a feat unparalleled in the history of horse flesh in this country. The time of the mare was 31 minutes and 42 seconds; and making allowances for breaking and turning, the credit due to her was scarcely inferior to that given to the horse.—We understand the king has expressed a desire to see the American who owns the Rattler, (Mr. Jackson of New,York.)--*London Paper*.

NINE-PINS.

A grave debate has been held in the city council of Albany, upon the question of banishing nine-pins to the suburbs, for the reason among others, that people are disturbed by this amusement in the night. One of the members, Mr. Mather, thought it would not do to *force* morality too much. Mr. Straats did not think playing nine-pins was so great a nuisance as was supposed, and if it were, he had as much regard for the people of the suburbs as for those in the heart of the city. They finally resolved that no *minor* should be permitted to roll nine-pins in the city, and that the amusement should be prohibited after eight o'clock in the evening.

The citizens of Albany seem to keep very good hours if their dreams would be disturbed by this recreation so early as eight o'clock.

[Quere, is the punishment that prescribed by one of the old blue laws—to stand with his tongue in a split stick? What shall we have next in the way of excessive regulation? as bad in morals as in trade; smuggling is apt to ensue in both cases.—The suppression of one open gentlemanly and manly amusement is sure to give rise to two gross vices—the more vulgar and pernicious for being the more concealed.]

MISCELLANEOUS.

Advantages enjoyed by Men of Science in France.

The naturalists and other scientific men of Paris have great advantages over those of London. The French government devotes a large sum of money annually to the support of scientific and literary institutions in the metropolis. Public lectures on every subject may be attended gratis; the most complete museums and libraries are of the easiest access. The social meetings at the houses of distinguished individuals, or of public bodies, such, for example, as those of the Baron Cuvier, the Baron Ferusac, the Institute, the Athenæum, &c., are frequent; and the intercourse at such meetings is of real use to literary men, because differences of worldly circumstances enters into them for little or nothing. It is not to be wondered, therefore, that with superior native vivacity and acuteness, and all those opportunities, the French philosophers should be the first in the world.
[*Mag. Nat. Hist.*

At a recent meeting of the Royal Institution, Mr. Burnet delivered a lecture on "Vegetable Metamorphoses," in which he took a view of the interesting and extraordinary changes which are common in the vegetative process; and detailed a series of them which can be effected by art, whereby one part of a plant is made to perform the functions of another;—the branches to become roots, and the roots branches;—the leaf-buds to become flower buds (producing fruit,) and the flower-buds leaf buds. Mr. Burnet noticed the extraordinary change which takes place in the aspect, weight, bulk, and general character of plants when subjected to careful cultivation.—*Ex. gr.* the cauliflower originally weighed only a quarter of an ounce; in like manner the weight of the common cabbage, prior to cultivation, was about half an ounce, but specimens of that esculent are now to be found weighing 60 lbs. each!

Mr. Burnett, Craigellachie-inn, Elgin, has a goose nearly a year old, that has formed so strong an attachment towards him, as to follow him to any distance, and through the crowds and bustle of High street. A few days since the kindly animal followed him down the street, and into a hair-dresser's shop, where it patiently waited until its master was shaved, after which it accompanied him on another visit into the shop of a friend, and then proceeded home with him cheek by jowl. The goose is so well acquainted with Mr. Burnett, that it readily recognises him in whatever dress he may appear. It even knows his voice when he is not to be seen, and no sooner does he speak than it responds to him in its own unintelligible dialect—a dialect pretty much resembling the oratory of a Welchman when he attempts to spout with a hot potato in his mouth.
[*Elgin Courier.*

Scraps from History.

Printers, originally endeavoured to make the books they printed resemble manuscript. Puppets were employed formerly to work miracles. Chinese puppets are put in motion by means of quicksilver. The Roman ladies dyed their hair with plants brought from Germany. Saltpetre is used by the Italians for cooling wine. Thomas Schweicker wrote and made pens with his feet. Soap was invented by the Gauls, and used by the Roman ladies as pomatum. Boiled water is said, on good authority, to freeze sooner than unboiled. Wildman taught bees to obey his orders. The Greek and Roman physicians prepared their own medicine. Gustavus Brickson, king of Sweden, when he died, had no other physicians with him than his barber, master Jacob, an apothecary, master Lucas, and his confessor, magister Johannes. King Charles II. invited to England, Brower, a Fleming, to improve the art of dying scarlets.

BRITISH DEBT.

We some time since noticed the generous donation of £6 sterling, made by a gentleman in London, towards the reduction of the National debt. A friend of ours has made a calculation to show how far this sum would go towards its liquidation. The debt is £900,000,000. The average interest paid is said to be about 4½ per cent.

The interest per annum is	£40,000,000	0s.	0d.
per day is	£109,589	0s.	0d.
per hour is	£4,566	4s.	2d.
per minute is	£76	0s.	0d.
per second is	£1	5s.	4d.

So that the donation would not pay the interest of five seconds of time—not long enough for the commissioner to write a receipt for the money, but allowing him barely time to say, "please to accept His Majesty's thanks."
[*Portsmouth Adv.*

Lake Erie, May 16.

The waters of Lake Erie within the last three years have made rapid and extensive inroads upon the rich and beautiful lands which skirt its southern shore. The banks in many places, including from five to ten or twenty acres, sometimes in the space of a moment, break and slip, like an avalanche, almost or quite to a level with the bed of the lake. Fine farms are often materially diminished, and towns situate directly on the lake are endangered. The lake seems evidently encroaching upon the whole extent of the southern shore, as if by operation of some immutable law of nature.

INTEGRITY.

Integrity is a great and commendable virtue. A man of integrity is a true man, a bold man, and a steady man; he is to be trusted and relied upon. No bribe can corrupt him, no fear daunt him; his word is slow in coming, but sure.—He shines brightest in the fire, and his friend hears of him most when he most needs him. His courage grows with danger, and conquers opposition by constancy. As he cannot be flattered or frighted into that he dislikes, so he hates flattery and temporizing in others. He runs with truth, and not with the times—with right and not with might.
[*Penn's Advice to his Children.*

WOOD TAR.

It is not generally known that the substance obtained in the process of the distillation of wood, and which is commonly called Wood Tar, burns in lamps as well as oil. At the ironworks, near Neath, where this tar is made, it has entirely superseded the use of both candles and oil for night work. In burning it is less offensive than the common oils, and about one-eighth of the expense.

RECIPES.

TO PREVENT SHOES FROM TAKING IN WATER.

One pint of drying oil, two ounces of yellow wax, two ounces of turpentine, and half an ounce of Burgundy pitch, melted carefully over a slow fire. If new boots or shoes are rubbed carefully with this mixture, either in the sunshine, or at some distance from the fire, with a sponge or soft brush, and the operation is repeated as often as they become dry, till the leather is fully saturated, they will be impervious to the wet, and will wear much longer, as well as acquiring a softness and pliability that will prevent the leather from ever shrivelling.

Note.—Shoes or boots prepared as above ought not to be worn till perfectly dry and elastic, otherwise their durability would rather be prevented than increased.

TO MAKE BRANDY PEACHES.

Take a peck of peaches, scald them in strong lye, few at a time, let them lay a few moments, then rub them with a coarse cloth until the down is quite removed, then lay them in cold water for a few moments—to a peck of peaches of middle size, take 5 lbs. loaf sugar, make a syrup, boil them in it till tender, then boil the syrup thick, take as much brandy as you have syrup, mix well together, put in the peaches and tie them up close.

FOR DYSPEPSIA.

One pint of hickory ashes, one quart of boiling water and a tea cup of soot. Let it stand twenty four hours, strain and bottle it.

THE FARMER.

BALTIMORE, FRIDAY, JUNE 26, 1829.

☞ SUCCESSFUL OPERATION FOR THE STONE IN THE BLADDER OF A HORSE, AT THE VETERINARY COLLEGE, IN LONDON.

MR. SKINNER: *Baltimore, June 23, 1829.*

My son in his letter to me, says, "I have now to inform you that Mr. Sewel has been successful in extracting a stone from the bladder of a hunter that was sent to the college to be destroyed. The horse recovered without the least unfavourable symptoms. I have a cast of the stone, with an engraving in a journal with the history of the case, and manner of performing the operation, &c. I was present at the operation, and had a good stand. The horse was down about forty minutes, and Mr. Sewel was twenty minutes in extracting the stone after he commenced cutting—the stone weighs about three ounces. The manner of performing the operation is the lateral one:—the horse is cast, placed on his back, his yard is drawn, and a whalebone staff passed down the urethra until it can be felt at the perineum, then cut down upon the staff into the urethra, then cut laterally into the bladder.—I have given you this slight sketch of it, as in veterinary surgery it is entirely novel."

Mr. Sewel is Assistant Professor at the Veterinary College in London. Yours, &c.

JOHN HASLAM.

[We are happy to add, with a parent's sympathy, that Mr. Haslam's son has been treated with distinguished attention by the professors of the college in London, indicating, as we should judge, qualities on his part, from which the most favourable augury may be drawn, and of which a father may be of all things the most proud.

It is gratifying to believe that our young men begin to seek honour and prosperity by other roads than the brief and the gallipot.—The bar is so crowded that they are literally treading on each other's toes, and the wonder is how they all exist—and if it were not that they do not harmonise so well, the disciples of Esculapius would soon be riding double through the country. There are surely other occupations that demand quite as much talent, and which are equally entitled to be honoured by sensible men. Let our youths begin by laying a good foundation in a careful study of *mathematics* and *chemistry.* We have immense mineral regions to explore: to bring their treasures to market, we have numerous canals and rail-ways to dig and to build—hence we have the prospect of a steady demand for the services of those who have thoroughly studied the *sciences* of *mining* and *engineering*—The preparation of chemical drugs, and the dyeing and printing of our manufactures, after they come from the loom—all these things and many others, offer fields for study and honorable occupation to our sons, much better and more useful to the country than studying law as a stepping stone to some precarious and servile public employment—or putting them to study medicine for the honour of being called *Doctor* Polyglot or what not, though the poor young man may be without talents for the trade, and what is of far more consequence, without subjects to work upon.]

FRIEND J. S. SKNNER, *Baltimore, Jan. 23, 1829.*

According to request, we send thee a sample of Bishop's Dwarf Prolific Peas, which thee may perceive are worthy of the above name and the high character given of them in the London Magazine. We only have the produce of one quart, a part we shall send thee for gratuitous distribution, the balance will be kept for sale at our store.

SINCLAIR & MOORE.

WANTED A FEW SEEDS OF THE FOLLOWING:

Oxycoccus erectus.—A small erect shrub, with divaricate or flexuous branches. Leaves, rather large. Berry globular, transparent, bright scarlet, and of an exquisite flavour. "Grows on high mountains from Virginia to Carolina." [*Elliott's Sketches.*

Lithospermum hirtum. vel Batschia Gmelini (*Mx.*)—Stem 10 to 16 inches high, generally simple, several from the same root. Leaves, alternate. Flowers axillary—near the summit, crowded like a terminal raceme. Corolla, bright orange.—Common in the middle districts of Carolina.

"This is a very ornamental plant, and merits a place in every flower garden." [*Elliott.*

Silene regia.—Stem four or five feet high, much branched. Flowers large, bright scarlet, and very numerous, "throughout the western states—one of the most splendid species in existence." [*Nuttall.*

Silene rotundifolia.—Decumbent, stem, calix and margin of the leaves very pilose. A very singular and beautiful species with bright scarlet flowers—flowers few, almost terminal.—In the state of Ohio and Tennessee, on the moist ledges of rocks. [*Nuttall.*

Bartonia ornata.—Stem much branched, from 2 to 4 feet high. Flowers odorous, yellowish white, of uncommon magnitude. On the banks of the Missouri.

"The genus Bartonia is one of the most singular and splendid in North America." [*Nuttall.*

Brassica Washitana.—Flowers red or scarlet. Native of the Washita country.

BALTIMORE MARKET.—There is very little change in the flour market since our last. The wagon price of Howard street Flour is $6.00, the store price $6.25.—There may be occasional trifling deviations from these rates, but they will be found correct in the main. A cargo of very fine white corn belonging to Mr. William H DeCourcey, of Wye river, Queen Ann's County, was sold on Wednesday at 45 cents. An advance of about 2 to 3 cents will be noticed in this article. *Live Stock.*—There has been no first rate stock in market since our last; sales of small lots medium have been made at an average of $5 75.

LATEST FOREIGN NEWS.

By the Silas Richards, London and Liverpool papers have been received at New York to the 23d of May. A motion made in the British House of Commons on the 19th May, by Mr. Hume, for the consideration of the corn laws, was negatived almost unanimously, twelve only rising in its favor. All apprehension of the scarcity of bread stuffs had vanished.

Mr. O'Connell's case had been disposed of. He was not admitted to a seat in the House of Commons, and a new writ of election had issued for Clare.

New disturbances have taken place in the manufacturing districts.—The Spitalsfield silk weavers are not yet quiet. They have sent deputies to Macclesfield and Manchester, and the silk weavers in those places have also turned out for higher wages. The cotton weavers at Manchester collected on the 18th. and cut the warps of many weavers who were working at under prices.

From the Courier of the 22d.—The accounts from Lisbon of the 9th mention that the sentence against the twelve Constitutionalists at Oporto was carried into execution on the 7th—and this is the *first proof* furnished of a more humane policy! The population of Oporto were thunder-strock at the order of the execution, received on the very day when the decree of the Minister of Justice, promising a milder system, arrived. A good deal of irritation and discontent was manifested; but, says a letter from Lisbon—

"In order to cool the fermentation the authorities caused it to be published that it was a mere formality, and the royal pardon was depended upon, and was hourly expected. They succeeded thus to calm and delude the irritation felt for the respectable and innocent victims, until early on the Thursday morning, when, as in the case of Brigadier Moreira and his fellow sufferers here, a temporary gallows appeared in the finest square of Oporto (Praca Novo.) The most imposing military dispositions were displayed, the unfortunate victims were led to the spot, and by 10 o'clock they were no more."

LIVERPOOL MARKET, May 23d, 1829.

We have to notice a more active demand for Cotton this week, the sales of all descriptions having amounted to 17,390 bales—including 470 Sea Islands at 9¾ a 14d; 90 Stained at 5¼ to 9½; 6,300 Upland at 4¾ to 6; 2,460 Orleans, 2,450 at 5¼ to 7¼—10 at 8; 1,250 Alabama at 5 to 6. Notwithstanding the extent of business there has not been any improvement in prices, but for the last day or two holders have not manifested quite so much anxiety to press sales, especially of American Cotton, and the market has a less depressed appearance than for some time past. Brazils continue to be brought forward in quantity, and are now forced off at very low rates; about 1000 bales of American have been taken on speculation and 900 for export, of which 500 are American.

The import during the week is 9,486 bales, and since the 1st January, 329,313 bales have been received into this port against 230,479 to same period last year; the increase from the United States is 78,679 bales, all from the Atlantic States, there being a decrease of 15,953 from the Gulf of Mexico. The sales to day are computed at 2,000 bales. There have been no fresh disturbances in the manufacturing districts, but the general state of trade there remains in the same depressed state as heretofore.

There have been no transactions in Naval Stores. Rice 15 tcs. of inferior quality sold at 17s per cwt.

and 815 New York Salted Hides at 4 1-8 *a* 4¼ per lb. The Grain market has been lively this week and Wheat has improved 1s *a* 2s per quarter; about 2500 bls. of flour in bond have been sold at 31s *a* 32s per brl. and some partial sales of free, at 38s but the best parcels have been already called from the market. Upwards of 4000 quarters of Indian Corn, free, brought 33s per qr. and some in bond 24s, but the holders are now asking 1s advance on both articles; the operations are chiefly on speculation.—Tobacco—the business has been confined to a few purchases by consumers at former rates.

Corn Exchange. May 23.—With a light import of Grain for Tuesday's market, we have to notice a fair supply of American Flour. The operations generally have been to a fair extent, and at advanced prices, viz. of Wheat 2d per 70lb; Oats 1d per 45 lb; of Flour and Oatmeal, each, 1s per sack. No alteration in Indian Corn.

Average price of Corn for the last week.—Wheat, 69s 9d; Barley, 31s 6d; Oats, 22s 11d; Rye 33s 6d.

Duty now payable on Foreign Corn. Wheat, 13s 8d; Barley, 15s 8d; Oats, 15s 3d; Rye, 19s 9d.

London, *May* 21.

Thursday Evening, half past 7 o'clock.—It is gratifying to remark, that the scarcity, almost approaching to famine, which it was predicted would take place at this period, seems still as distant as ever, though we are now drawing near to the new harvest. The average of Wheat in the six weeks is rather lower than it was last Thursday; and since this time last month, there has been no sensible fluctuation in the averages by which the duty is regulated. So steady a market, indicates, certainly, no want of supply, and as two months, with the favorable appearances, that now present themselves, may bring new corn into consumption, there is good reason to hope that the danger which all classes in the city, but particularly the monied interests have looked forward to with so much apprehension, is nearly over. Those, however, who have calculated on famine prices of grain, at this period, have not erred, it seems, so much in their estimate of the crop, which has, beyond doubt, been a very deficient one, as in that formed respecting the supply from abroad; and a still greater oversight has been committed in leaving almost out of their calculation the diminished consumption within the country which the high prices have produced. This falling off has been so great, that according to the opinion of competent judges, if any are to be found on such question, it is probable that in proportion to the population of the country, less wheat has been consumed than was ever known. This is not to be taken as evidence, to the full extent, of the degree of suffering and privation endured by the lower classes, though it has, undoubtedly, been very severe in all parts of the kingdom. Other articles of subsistence have been resorted to as substitutes for wheat, and, it is most fortunate, that nearly all of them, though the wheat crop failed, have been produced in abundance, and have borne, up to this time, moderate prices. The prognostics formed of the new crop of wheat, are, we believe, so far favorable, though it is yet full early to form an accurate judgment.

Extract of a letter from London, May 22.

"We have fine weather since a week after the cold weather, which prevailed early in the Spring. The Corn Market has had a small advance, in Wheat of fine qualities, the average being now at 69s 9d. and duty 13s 8d. per quarter, and 8s. 3d. per. bbl. for flour.—American flour in limited demand at last quotations.

"We have letters from Havre to 19th inst. The prices for wheat and flour were maintained, Notwithstanding the considerable arrivals the sales had been effected at 50 francs for American flour."

Prices Current in Boston, June 19.

Apples, best, bbl. $.3.00 a 5.00. *Beans*, white, bushel 1.00 a 1.37. *Beef*, mess, bbl. 10.25 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 7.00 a 7.12; Genesee, 6.87 a 7.25; Rye, best, —. *Grain*, Corn, bush. .56 a 60; Rye, .70 a .80; Barley .67; Oats .40 a .42. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 16.00 a 16.50; Navy, mess, 13.00 a 13.50; Cargo, No. 1. 13.00 a 13.25. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool*, Merino, full blood, washed, .27 a .35; do. do. unwashed, .18 a .22; do.three-fourths, washed, .25 *a* .30, do. half blood, .22 *a* .25; do. quarter, washed, .18 *a* .20; Native, washed .20 a .22; Pulled, Lambs', 1st sort, .35 a 37; do. 2d sort, .22 a .25; do. spinning, 1st sort, 27 a .30.

Prices Current in New York, June 20.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .10 a .12; Upland, .8½ a .10½; Alabama, .9 a 11. *Cotton Bagging*, Hemp yd. .19 a .21; Flax .15 a .16. *Flax*, American, 8 a 9. *Flaxseed*, rough, tierce ——; clean ——; *Flour*, N.York, bbl. 6.50 a ——; Canal 6.50 a 6.75; Baltimore Howard st. —— a 6.75; Richmond city mills, —; country, —— a 6.37½; Alexandria, 6.50 a —; Fredericksburg —— a 6.37½; Petersburg, 6.37½ a ——; Rye Flour, 3.75 a 4.00; Indian Meal, per bbl. 2.37½ a 2.50; per hhd. 13.00 a 13.25. *Grain*, Wheat, Virginia 1.25; N.Carolina, —— a 1.25; Rye, North, 68; Corn, Yellow, North, .50 a .54; Barley, .54 a .55; Oats, South and North, .35 a .42; Peas, white, dry 7 bu. —; Beans, 7 bu. 8.00 a 8.50. *Provisions*, Beef, mess 9.75 a 10.25; prime 7.50 a 8.25; cargo 6.00. Butter, N. York, —— a —; shipping, .8 a .11; Lard, .5 a .6; Pork, mess 12.50 a 12.87½; prime 9.75 a 10.00, cargo 9.00 a ——; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* .2½ a .3. *Tobacco*, Virginia .3½ a .5½ a .6½; Kentucky, .3½ a 5½ a .6½. *Wool*, Merino, American fleece, .32 a .36; Pulled, .32 a .35; common, .18 a .25; Pulled, spinning, .18 a .33.

Prices Current in Philadelphia, June 22.

Bees-wax, yellow .22 a .23; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10.50 a 11, prime 9 a 9.50, cargo 7; *Butter*, No. 1, .8 a .8½, No. 2, .5 a .6; *Cotton*, New Orleans .11 a .13, Upland 9. a .10½, Tennessee 9. a .10½, Alabama 9. a 10½; *Feathers*, South. .32 a .33, West. .30 a .31; *Flax* .7½ a .7½. *Flour*, super. 6.00 a 6.62, fine 6.25; Rye 3.62 a 3.75; Cornmeal, hds. 11.50 a ——, bls. 2.25 a ——; *Flaxseed*, cask —— a ——; bu. ——; *Grain*, Wheat 1.30 a 1.35; Rye .60 a.65, Corn l. c. white, .44 a .46, l. c. yellow, .47 a .48, u. c. round, .50 a .52; Oats .30 a .40, Barley, Pa. .— a .—; do. East. .55 a .60; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western .8 a .8½; *Hemp*, 210; *Lard*, .5 a .8; *Oil*, linseed, .70 *a* 78; *Pork*, mess, 13.00 a 13.25, prime 11.50 a 12, cargo 10.00 a 10.25; *Rice*, 2.75 a 3.25; *Tobacco*, Kentucky .3½ a .6, Virginia .4½ a .7; *Wool*, common washed lb. .26 a .28, half blood 28. a .31, three quarters blood .31 a .32, full blood .34 a .38; unwashed, generally 10 cents less, according to quality.

MERINO SHEEP FOR SALE.

Will be sold at public sale, on the 6th day of August next, by the subscriber, near the Ship Tavern, in West Whiteland, Chester county, Pa., on the Lancaster turnpike, 25 miles west of Philadelphia, about 40 Bucks and from 4 to 500 Ewes, full blooded Spanish and Saxony Merinos. Sale to commence at 12 o'clock on said day.

This flock has been bred from some of the best imported Sheep, and greatly improved in quality, and are believed to be equal to the best in the United States. Samples of their fleeces may be seen previous to the sale. And I hope if there is a spark of American feeling or patriotism yet existing, it will come forward and lend its aid in preserving a portion of these invaluable animals from extinction, until the nation shall recover from the fatal delusion she now labours under, in preferring the labour of the *people of other nations* to that of *her own household*, and convince the world that a free people can clothe and take care of themselves.

West Whiteland, June 16. JAMES McILVAIN.

ALMANAC.

1829. June—July.	Sun. Rises.	Sun. Sets.	Length of days.	Moon Rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 27	4 37	7 23	14 46	1 58
Sunday,........ 28	4 37	7 23	14 46	2 41
Monday,....... 29	4 37	7 23	14 46	3 27
Tuesday,...... 30	4 38	7 22	14 44	sets.
Wednesday,.. 1	4 38	7 22	14 44	7 41
Thursday,..... 2	4 38	7 22	14 44	8 21
Friday,......... 3	4 39	7 21	14 42	8 58

New Moon, 30th, 11 h. 33 m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Tobacco.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 5.00—red, 5.00 *a* 6.00—fine red, 7.00 *a* 8.00, for wrapping 5.00 *a* 10.00—Ohio, common, 5.00 *a* 8.50—good red 8.00 *a* 12.00—fine yellow 10.00 *a* 20.00—Rappahannock, 3.00 *a* 3.50—Kentucky, fine 4.00 *a* 5.00—wrapping, 4.50 *a* 7.00.

Flour—best white wheat family, $7.50 *a* 8.00*—superfine Howard-st. 6.25 *a* — city mills, 6.00 *a* — Susquehanna, 6.00—Corn Meal, bbl. 2.50—Grain, best red wheat, 1.10 *a* 1.15—best white do. 1.20 *a* 1.30—ord. to good, .60 *a* 1.10--Corn, white, 43. *a* .45; yellow, .43 *a* .45—Rye, .53 *a* .55—Oats, .28 *a* .33—Beans, 1.00 *a* 1.25—Peas, .55 *a* .60—Clover seed, 3.50 *a* 4.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a*.50 lb.—Barley, .45 *a*.50—Flaxseed, 1.00—Cotton, Virg. .8½ *a* .10—Lou. .11 *a* .12—Alab. .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Geo. .9 *a* .12—Whiskey, hhds. 1st pf. .23—-in bbls. .24 *a* 25—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 4.00 *a* 4.12½; No. 2, 3.50 *a* 3.75—Mackerel, No. 1, 6.00; No. 2, 5.25; No. 3, 4.25—Bacon, hams, Baltimore cured, .10 *a* 11; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .29—Plaster Paris, cargo price per ton, $3.50, ground, 1.25 bbl.—Prime Beef on the hoof, $5.50 *a* $6.00.

*Eight dollars by the single barrel, for Ellicotts' Patapsco white wheat family flour.

Marketing.—Raspberries, 12½ *a* 18¾ per quart; Cherries, 6 *a* 10 per qt.; Currants, 6¼ per qt.; Blackberries, 8 *a* 10 per qt.; Cucumbers, 12 *a* 18¾ per doz.; Beans 18¾ per peck; Peas, 12½ *a* 25 per peck; Squahs, 18¾; Butter, lb. .20 *a* 25; Eggs, .10 *a* .11; Potatoes, Irish, bush. 1.00 *a*——; Chickens, doz. 2 *a* 3.00; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .87½ *a* 1.00; Sausages, lb. .8; Pork, 5.50 *a* 6.00 cwt.

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AGRICULTURE.

(From the Western Tiller.)

HEMP.

Some years ago a machine was invented in England, for breaking and dressing flax and hemp, without rotting, and thereby preserving the strength of the fibre, and saving labour, as well as a part of the material. This machine was introduced into this country soon after its invention, and several modifications of it were, as is usual in all such cases, immediately devised, for the purpose of improving it. Great expectations were entertained that it would have a favourable influence upon our manufactures, and especially upon the agricultural interest of the northern states, by creating an extensive demand for flax and hemp. These expectations, however, have not been realized; the machine it appears did not succeed, for what reason we do not know, but think it probable that it was owing to the difficulty of separating the fibre from its outer covering and the gummy substance attached to it.

A machine has been invented, which is now in advantageous operation, in Kentucky, for cleaning hemp, when half rotted; by which means the advantage of preserving the strength of the fibre is retained, together with the other advantages expected from the former machines, and it appears to have perfectly succeeded. The following extract from a communication to the Editor of the Tiller, by Mr. Amos Stout, of Woodford county, Kentucky, gives some information of the result of his experience in the use of the machine.

"The method of watering and cleaning hemp for market seems to be less understood than the growing of it, for which latter purpose, rich, light, day soil is the best. Reclaimed sod land is preferable to fresh cleared land, its growth being more rapid on such soil than on reclaimed lands. The lint of such as is raised on the latter, is thinner, harsher, and yet it is darker in its complexion than that grown on sod land; experience has taught me this. The hemp must be cut with hooks, before the male stalks die, otherwise the hemp will be dark coloured. When cut it should not lie exposed to the sun longer than two days. Great care should be taken to keep it of a bright colour, as it is the complexion of the article that fixes its value. The season in which it is spread has great influence on the colour; that which is spread out early is uniformly dark; that which is rotted in the months of December, Jnuary and February, is uniformly bright; the water rotted suits the navy and the eastern markets, but in consequence of the unhealthy and laborious process of water rotting, it is not to be expeced there will be much done in this way of preparing our hemp for market, and it is liable to get wa ered too much in the warm season of the year;—therefore the public are as liable to be deceived in e cordage made of water rotted, as that made of ew rotted, as the one is uniformly bright, and th other uniformly dark. For these reasons I wo propose, as most profitable for the farmer, to ha dew rot his hemp, or rot it until the gum is extra d; at this stage it is of a bright colour, and in th est state for manufacturing it; by this mode of ing, the public cannot be deceived in the streng of their cordage, for even if it should be a shade rker there can be no doubt of its strength. Fr these facts, it must have the preference over a ther American hemp, and will compete with t irst quality of Russia hemp. I have had the inions of experienced manufacturers of cordag nd those from the seaboard, who have been i e habit of working Russia hemp, to which the hesitatingly pronounced it equal, if not superio The quality was similar to the sample that I le th you. To produce this quality of hemp it req s care in rotting and cleaning; it should not be e than half rotted to clean on the hand brake. I broke a part of my crop which was what would be considered half dew rotted, on a machine that was erected for the purpose, and I found it to be of great utility, and a saving of labour as well as lint; the machine breaks it ready for the scutcher or common hand brake, and saves at least one third of the labour. On the common hand brake my hands cleaned from 250 to 350 per day, after it was broken on the machine. Mr. McComb (the patentee,) and myself tended the machine for two days, and I found it moderate work to break for four hands to clean, and two hands will clean as much with the scutcher as four on the hand brake. I have, however, an objection to the scutcher, as it makes too much tow, (say) about 10 lb. to the 100, which is too much for the farmer to lose; but if the breaking was conducted with a bale rope and bagging factory sufficient to work the indifferent hemp and tow, it would be profitable to use the scutcher, as it would save one half of the labour of cleaning the hemp, and improve its quality. My loss on the hemp brake was 3 lbs, to the 100. There is no loss of lint in breaking on the machine, and I might almost say, there was none in any way, for you save the tow, which is worth half the price of hemp. That part of my crop that I broke on the machine produced me at least 25 per cent. if not 30, more than if it had been fully dew rotted. I saw a letter written by Mr. James S. Bates, of Jefferson county, who used one of Mr. McComb's machines last year, and he states that his whole crop, of 80 acres, to have produced him 33 1-3 per cent. more than if rotted and cleaned in the usual way. From my own experience I am satisfied that there is at least 25 if not 33 1-3 per cent. saved in waste of lint. The machine is simple in its construction, and the power may be increased from one to six horse power. I observed the time it would take to break a bed of 50 lbs., which was five minutes; the time it takes to lay down, break, and take off a bed, is fifteen minutes; the machine that I broke on, was one of three horse power. On the hand brake one hand would not clean more than from 25 to 30 pounds per day. It is not necessary for me to give you a minute description of the machine and its powers, as Mr. McComb will visit your city in fifteen or twenty days; he will call on you and give you the details respecting the machine; you will find him quite intelligent, and from my personal acquaintance with him, he is a gentleman that is worthy of your particular attention, and I shall expect you to use your influence, as far as you should judge the machine useful and beneficial to the community. I should not pretend to say with certainty what the cost of building one would be; but at a rough calculation it would cost something like $150, and it is a clear saving of at least one third of the labour, and if the scutcher is used it will save one half, and the quality of the hemp is advanced from 33 1-3 to 50 per cent. These are facts that are well known to the public;—in my own opinion, there is a greater opening for a man with a capital of $5000 to $8000, in this city, than there is in any other business in this part of the western country.

ADVANTAGES OF AN AGRICULTURAL LIFE.

That agriculture possesses distinguished advantages, we desire no other evidence than is furnished by the fact, that immense numbers of all classes, spend the spring and summer of their lives, in providing means to pass the autumn and winter of their existence in the country.

Few men, no matter how elevated, or how humble—no matter how brilliant their reputation for genius, or how unbounded their affluence—no matter how extensive and profitable their avocations, or how sanguine their hopes, have ever existed, in a city, without a secret or avowed intention, that when they shall have attained the highest point of greatness, or accumulated wealth sufficient for comfortable independence—when they shall have filled the world with their names, or have amassed countless thousands—when they shall have reaped the last harvest, that their employments can create, or seen their fairest hopes fully realized, of abandoning the bustle and turmoil, the cares, anxieties and responsibilities, incident to their various stations in the city, and retiring to the solitude of the country, there to pass the decline of life, amidst the pleasures of literary leisure and the comforts of domestic peace.

The statesman in the full meridian of his glory, turns with delight from the vexations of office, to contemplate the tranquil attractions of rural life, where all the beauties of nature solicit his admiration, and all the exquisite enjoyments of placid content and sweet retirement court his acceptance.

The humble tradesman, toiling night and day for a scanty subsistence, compelled to submit to the "proud man's contumely," and the "oppressor's wrong," while he hoards his little treasure, offspring of his constant labour, is consoled by the hope that it will one day or other, enable him to lead a life of comparative freedom in the country.

Authors, the fabric of whose fame is erected on a basis impervious to the course of time, withdraw to the country, where they are less exposed to the venomous shafts of malice, and the barbed arrows of envy, and where they can pursue their studies, more comfortably and more advantageously.

The man of wealth, with unnumbered millions at his disposal, kindles at the idea of separating himself from the leeches which surround him, and anticipates the highest perfection of human felicity in removing from the busy world, to some secluded spot, where he can pursue the even tenor of his way, unexposed to ceaseless applications for loans of money, perpetual persuasions to embark in hazardous schemes of speculation, and the heartless attentions of those, who hope to divide his affluence amongst themselves, and squander it, perhaps in indolence and dissipation.

The professional man, exhausted by years of incessant toil, fondly cherishes the hope, that he will be able, finally to exchange his life of labour in the city, for one of ease in the country. Where the pure air will restore his shattered constitution, wholesome exercise renovate his enfeebled frame, and domestic cheerfulness revive his drooping spirits.

The great objects of man's hopes and exertions, is happiness. The great secret of terrestial happiness is health. A residence in the country facilitates the acquisition of the requisites conducing to the establishment of health. Exercise and temperance are the two best physicians in the world—the one whets the appetite, the other prevents the abuse of it. Upon a farm it becomes indispensable that the owner should be always actively engaged, otherwise he cannot hope to render his property valuable. If, therefore, he discharges his duty, he will find it necessary to take regular and abundant exercise. The man most constantly employed, is most likely to lead a temperate life. Those only who lead a life of indolence, and are tortured by its attendant train, of fears, sorrows, chimeras and passions, are plunged into the horrid gulf of intemperance. Inhabitants of a city almost invariably lead a sedentary life, and if there are those who take exercise, they are compelled to do it, in air polluted; they breathe the pestiferous miasmita, generated by the filth of the city. Inhabitants of the country, go where they will breathe pure, unadulterated air, I allude of course to those dwelling in salubrious regions. Health then is one great, incalculable advantage, resulting from a residence in the country. Omnipotent Heaven can confer no higher blessing upon man—this renders smooth the rough paths of life—

this furnishes man more true joy, than he could derive from the combined treasures of Golconda and Potosi. Without it, the pleasure resulting from gratified ambition, successful love, or brilliant fame, is vain and hollow. Without it, every other power, physical or mental, is as torpid and lifeless, as would be the vegetating powers without the genial influence of the glorious sun.

The immortal Locke somewhere says, "he that possesses a sound mind, in a sound body, wants little else, he that wants either can be but little the better for any thing else." A sentiment to which the world will unanimously subscribe. And Martial, has comprised the same sentiment, in one solitary line:

"Non est vivere, sed valere, vita."

It is health which blunts the edge of all our misfortunes, and adds a double relish to every enjoyment. It renders the body vigorous, the mind masculine. Disease engenders sloth, this induces effeminacy, of the corporeal and intellectual faculties. I will conclude by expressing more forcibly, in the language of a once admired poet, the difference between them:

"The wise and active conquer difficulties,
By daring to attempt them. Sloth and folly
Shiver and shrink at sight of toil and hazard,
And the impossibility they fear."

FALTORE.

June 27, 1829.

(From the British Farmer's Magazine.)

CAUSE OF SMUT IN WHEAT.

Sir—I was much pleased with a communication in your last number, by a correspondent who signs himself J. H. B. (see American Farmer, No. 9. vol. 11,) on the cause of smut in wheat. The writer is a very accurate botanist, and perfectly well acquainted with the sexual system of the immortal Linnæus. In fact, his letter is a very able botanical lecture; and being illustrated by a figure of a hexandrious flower, so necessary for many of us, your readers, we cannot but feel under obligation to him for the information.

He describes truly the different parts of the inflorescence of plants; their extreme delicacy and liability to be injured by unseasonable frost, drying winds, or continued rain. With respect to all kinds of fruit-bearing shrubs and trees, he is unquestionably right. The cause of failure of a crop on them he detects, and satisfactorily describes; showing clearly, that when any of the essentials of the fructification are damaged, no perfect fruit or seed can be matured.

Every body knows of the injury frequently sustained in the garden and orchard by late frosts, by blighting winds, or by swarms of insects. These enemies of the orchardist generally wither or destroy the flowers, and hence no crop can follow. This being a well known fact, your correspondent very naturally conceives that the same cause may produce smut, or other imperfection in wheat. It is certainly a very natural conclusion; because, as he sufficiently shows, that imperfect impregnation of the productive organs cannot be succeeded by perfect grain.

But in the case of wheat or other grain, I fear his ingenious hypothesis will not apply. Not because the flowers of wheat, &c are undestructible by frost or violent winds, or dashing rain, (which we know are all occasionally fatal,) but, because the disease called smut commences long before the developement of the ear, of course before the time of flowering. It is a question whether an entirely smutted ear ever flowers at all; one which is only partially smutted must of necessity have a partial bloom, otherwise no sound seed could be produced.

Whatever may be the cause of smut, it does not appear to be a consequence of imperfect florescence; but of some other less apparent and occult disease, which it would be well worth the attention of J. H. B. to investigate. He has the necessary powers for such research, and to instigate him to such a scrutiny is the chief object of this letter to you.

J. H. B. will readily perceive that if smut be a consequence of defective bloom, all our old means of prevention are completely futile; because no treatment of the seed can possibly defend the crop from atmospherical effects, happening six or seven months afterwards.

At no time has the cause and cure of smut occupied more attention than now, as the various communications in your Magazine sufficiently testify. Still we seem to be out at sea without rudder or compass, and tossed to and fro by the mere winds of conjecture. Should J. H. B. be induced to look more closely into the matter, and watch the first appearances of the disease as it presents itself to the eye, he may, peradventure, elicit information which will be at least amusing to himself, and may greatly benefit those who are so much interested in growing clean crops of wheat. I am, &c. &c.

X. Y.

Berks, Nov. 12, 1828.

(From Niles' Weekly Register.)

TOBACCO.

According to a parliamentary paper just published, the quantity of unmanufactured tobacco imported into the United Kingdom in the year ending Jan. 5, 1829, was 18,594,808½ lbs. the duty on which amounted to 2,782,862*l.* 9*s.* 4*d.* Of manufactured tobacco, 49,648¼ pounds, the duty on which was 22,341*l.* 11s. The total quantity of tobacco of all sorts imported during the last year, was 18,644,689¼ lbs. the duty on which was 2,805,274*l.* 18*s* 6*d.* Of this quantity 5,328,977¾ lbs. were imported into the port of London, and 5,232,613¼ lbs. into the port of Liverpool.

☞ The whole export of tobacco from the United States in the past year, was 96,278 hhds. valued at $5,269,960—or say 55 dollars per hogshead.

A hogshead of tobacco is a very uncertain quantity—those of Maryland weigh from 800 to 1,000, but most from Virginia are of about 1400 lbs.

The following shews the destinations of the chief quantities and values exported last year:

To Great Britain and Ireland,	*h.*26,729	$1,720,000
Netherlands,	21,216	815,815
Hanse Towns,	23,949	900,574
France,	5,909	800,606
Gibraltar,	6,262	322,821
Sweden and Norway,	8,212	187,002
Italy and Malta,	1,238	97,958

All else under 1,000.

The great difference in the value per hhd. exhibited in this statement, is worthy of remark. The hogsheads sent to France had an average value of 130 dollars—those to Great Britain of 65—and those to Hanse Towns, &c. less than 40. It may be explained thus—the largest hhds. and of the strongest and best Virginia tobacco were sent to France, to be mixed with the weak tobacco grown in that country, and Britain received a considerable quantity of the same sort, but much of the cheaper kinds, for export to the continent; while to the Hanse Towns, &c. except a few choice hogsheads, the whole quantity was of our weakest tobaccoes and smallest hogsheads--almost exclusively used for smoking.

The whole quantity that paid duty in the United Kingdom being only 18,644,689 lbs. was of far less amount than was received from the United States; but much tobacco, the growth of other countries, is consumed—of ours, not more than about 14,000 hhds. worth about 1,000,000 dollars, an allowance being made because of the better sorts used.

But taking the average weight of the hogshead at 1,000 lbs. and $65 as the average value, it will appear that 18,644 hhds. worth 1,211,860 dollars, furnished a revenue to the British government of 2,805,274*l.* or about twelve millions and a half of dollars! An elegant specimen of "free trade!"—A greater sum *collected*, in nearly one half its whole amount, than was collected in the same year in the United States, on thirty-three millions worth of British goods received by us, even at their *custom house* valuation, and probably worth at least forty millions!—How "unkind" and "illiberal" is "brother Jonathan" to Mr. "John Bull?" *John* taxes a Yankee product worth a million and a quarter, in the sum of twelve millions and a half—and *Jonathan* taxes British products worth forty millions in the sum of six or seven millions—and *John* grumbles at *Jonathan*'s want of a liberal spirit, and bawls about his refusal to *reciprocate* FREE TRADE! How modest is John! he adds flour to tobacco, lumber to flour, fish to lumber, and every other article the growth or product of the United States, cotton excepted, unless some few raw materials of no great importance, and excludes, or taxes, the whole pretty much after the manner that he taxes tobacco. Modest—generous *John!*

The New York Commercial Advertiser presents us with the following paragraph as to the substance of certain remarks in the London *Quarterly Review* respecting tobacco, looking to the exclusion of the American from the British market, if there shall be a "pertinacious adherence to the restrictive system!"

The enormous duty levied on tobacco, according to its present prices, he [the writer in the Review] says, amounts to *one thousand per cent. upon the original cost.* And it is by a reduction of this duty, in favour of their colonists, that the Reviewer contends, notwithstanding the great disparity of distance, that the American can be undersold in the British market. The present duty on all unmanufactured tobacco is three shillings sterling per lb.; and nine shillings upon the manufactured article. The reduction proposed is two shillings per pound on all manufactured tobaccoes, the growth of British colonies, in all parts of the globe. The great distance of the Australian colonies the writer regards as an advantage, in a national point of view, as it will afford more employment for British shipping. The trade in American tobacco, amounting to many thousand tons, the writer says is exclusively carried on in American ships—"a power which already appears to entertain the purpose of disputing with us the empire of the sea."

Bless us!———but, and if Britain shall exclude our tobacco, which costs *one* million of dollars, and yields her a revenue of *ten* millions, what shall we do? We will exclude British *threads, tapes* and *bobbins*, and BALANCE THE ACCOUNT IN THESE THREE THINGS ONLY. And as to the loss of tonnage, because of Britain's refusal to use our tobacco, we suppose that it may be compensated by an increased import of molasses (and more,) if the people of the little state of Rhode Island, only, will agree to "*sweeten both sides of their bread*" instead of one! The 14,000 hhds. consumed in Great Britain, will require only 9 or 1000 tons of shipping—and, if the vessels make but two voyages a year, employ, say, *thirteen* ships of [illegible]00 tons—which must *materially* advance our "purpose of disputing the empire of the sea,"—for they will require the services of about 150 *seamen*! The Quarterly Review, it should be recollected, whatever concerns the United States, never embellishes or augments any thing, nor ever tells a lie about us! We believe it was this *veritable* work which lately gave a true account of an election in Kentucky, at which it was necessary to employ carts to carry away from the village the human noses and ears that had been cut off, and eyes gouged out, during the contest, lest the putrefying matter might breed a pestilence!

A considerable quantity of tobacco is grown in Ireland—that pays no duty, concerning which the

Liverpool Chronicle of the 9th May, said—"We are borne out in stating, in our publication of the 7th of March, that no reliance should be placed in the tobacco trade on the proceedings of the present chancellor of the exchequer. The importers and dealers are again up in arms, by permission, it is said, being given to the Irish planters to have another year's growth of tobacco, free of any duty. Besides the injury to the importers, &c. of foreign tobacco, government will, it is supposed, permit a quantity to be consumed, equal, had it been foreign tobacco, to a loss in the revenue of nearly half a million; and, it is alleged, that they might have purchased all the plants at present in the ground for less than twenty thousand pounds."

It may be expected that the British government will reduce the duty on tobacco. There is *every* inducement—even that of increasing the revenue, by a mightily increased consumption, to do it. This is an important subject, about which we have some notes prepared for future use.

(From the New England Farmer.)

LUCERNE.

Mr. Fessenden—I am sorry to be obliged to request a correction of two errata, in my last article on Lucerne, and the more so, as I have no doubt, that both arose from the illegibility of my own writing, yet as they produce absurdities, I wish to correct them.* As printed, I am made to say that I have four *species* of Lucerne; whereas I afterwards say, that I have but one *species*, the *Medicago sativa*. It should have been *pieces, cultivated in Lucerne*. The second error arose from improper punctuation. I meant to say, that Lucerne, (*at least in good land*) produces four crops—but as it stands, it may be understood to mean, that it produces *four crops at least*, which is a very *different* thing. I am now enabled to add, that I have cured a crop of Lucerne, and took it in this day. It gave 30 hundred to half an acre—was easily cured—retains its verdure, instead of being black, like clover, and is very greedily eaten by horses and cows. The Lucerne which I cut for fodder on the 10th of May, is now two feet high, as high as clover, and red top, (or *poa pratensis*) growing by the side of it, which has not been cut, this season. I should recommend sowing red top, or orchard grass, or tall meadow oat grass *with it*, as the hay will be finer--but *by no means*, herds grass, as the Lucerne will be ripe and rotten, before the herds grass will have sent up its spires. Besides, the herds grass has no after crop to protect the Lucerne, but the other grasses shoot again almost as freely as that does.

Roxbury, June 11, 1829. J. Lowell.

N. B. I should be wanting in duty to the public if I did not add, which I do most distinctly, that neither the orchard grass, nor the Lucerne, will flourish, or even live to any advantage in wet ground, or in cold black soils. This I say from experiment.

Remarkable Cow and Calf.

Mr. Editor—The subjoined account of a cow and calf, may deserve a place in your paper. The facts stated are susceptible of proof.

Rowley June 9, 1829. S. Jewett.

Mr. Jeremiah Stickney, of Rowley, has a cow, of a bay colour, seven years old, which produced a cow calf, this season, weighing at the time of its birth, 93 lbs. At the age of six weeks the calf weighed 195 lbs. making a gain of 2 3-7 lbs. per day. In addition to supplying the calf, the cow now affords 8 quarts, beer measure, of milk of the richest quality, daily. The calf being taken from her to ascertain the quantity of milk she would give, daily, nineteen quarts were taken from her. The cow is of a large size, remarkably well proportioned, and handsome. The calf is a very fine animal, and resembles the cow both as to colour and shape. The cow afforded milk up to the time of her calving, with no other keeping than hay.

PROSPECT OF CROPS.

Extract of a letter, dated Auburn, N. York, June 14, 1829.

Winter crops in general look favourable; unless injured by drought, will in all probability yield a bountiful crop. Wool is depressed, and I very much fear that the sheep farming will retrograde. Grass is light, and on old meadows but little hay will be made. Oats and barley are now suffering for want of rain.

Extract of a letter, dated Retreat, (near Dublin,) Georgia, June 17, 1829.

In this part of the country the season has been unfavourable for all crops: the rains commenced on the 2d of May, and have continued until the 13th instant, inclusive, except on ten days; on all other days more or less rain fell. This has been unfriendly to the wheat harvest; and I fear the crop of grapes, already much injured, may be lost by the rot. Respectfully yours, Thomas McCall.

HORTICULTURE.

DISEASE AMONG SILK WORMS.

Statesburg, S. C., June 16, 1829.

Sir,—When I had the pleasure of seeing you in Baltimore in March last, you were kind enough to proffer, through me, to the Misses Waties of this vicinity, all the aid in your power, (by advice or otherwise,) to their new establishment for rearing the silk worm; an enterprize highly creditable to them and deeply interesting to *this* state, if not to the country at large, from the circumstance of their having engaged in it, on a scale more extended than has yet been known in the United States—I promised you at the same time, to give some account of their progress and probable success, and now proceed to do so, more with the hope that your experience may furnish a remedy or account more satisfactorily for a partial failure, than that what I offer will be interesting to you.—They have erected a house, intended for the accommodation of one million of worms. It is 80 feet in length by 30 in width, has four doors and fourteen windows, plaistered both inside and outside, containing three rows, the whole length, for the hurdles, and each row having three double tiers—The eggs were hatched at the usual time, to about the number of one million, (as likely over as under.) They commenced feeding on the white mulberry, and continued until the worms began to *eat* so *large* a quantity, that it was inconvenient to procure them, being obliged to send the distance of from three to seven miles for the leaves. I will here remark, they have planted five hundred trees, now prospering, besides a quantity of the seed for a nursery and hedge. The red and black mulberry is abundant, but the received opinion is, that the silk is not so *fine*, being fed on them; from necessity, however, they were compelled to commence after the third molting, to feed one half upon the red—*all* continued to prosper, fed well, were large, healthy looking, and indeed was a sight worthy and did attract considerable attention.

During the fifth stage, in a corner of the house of those fed on the red mulberry, a disease appeared: early in the morning several hundred were discovered *dead*—*these* were cautiously removed, as well as those appearing sick and burnt. The contagion, however, spread, and by the succeeding night but few remained on that side the house; *they* in like manner had been removed with expedition, and buried. We now entertained the hope, that all further ravages had ceased; but two days after, the disease again appeared, and in one week from the time of its *first* appearance, all was desolation, but a few thousand being saved from the whole. However, previous to the appearance of the disease (which Dandolo describes as the tripes,) the espaliers or bowers had been formed, and many thousands were spinning their cocoons: so near were these ladies to the consummation of their enterprize, and the reward of their intelligence and industry. They calculate now from having counted a portion of their cocoons, that they have at least fifty thousand saved, to prepare for market. You have a sample, which they made last year, there is no reason to doubt the quality of this will be equal.

A week previous, and during the time of the contagion, the weather had been *rainy*, and it was impossible to procure dry leaves, or dry them in sufficient quantities to feed such an immense number of worms—*this*, no doubt, was one cause of the disease, but the following queries present themselves: Is a change of food at any time injurious; that is, having began to feed on the white, is it improper to feed on the red mulberry? Is damp weather, provided the leaves are dried, injurious? If so, should the windows be closed or stoves heated? Is it proper at any, or at all times, to keep the windows opened? Is not heat beyond 81° injurious? An answer to *these*, or any other suggestions, which you or your correspondents, may make, will aid in facilitating a design, which may eventually benefit the public, as well as the individuals interested. These ladies (much to their praise,) are not deterred from persevering, and indeed entertain hopes from a second *crop*, now making their appearance, several hundred having hatched already. On this subject, permit me to inquire, whether the natural heat of the weather will reproduce them, or whether they require artificial heat? Whether there are not certain kinds of eggs which do not hatch a second time the same season—and cannot be made to do so? And whether keeping the eggs, during the summer and succeeding spring, in an ice-house to prevent hatching, may not injure the eggs, or have a pernicious effect upon the worms hatched from such eggs?

I have thus, sir, *hastily* performed my promise to you; in doing so, I must beg to be pardoned for troubling you with interrogatories—it is but fair to impart information for information requested, but not being able at *this time* to afford any such to you, I rely upon your kindness, already mentioned, your long *experience* in rearing the silk worm, so much better than any thing we can read, to give such advice (if in your power,) as may prevent the repetition of a failure of hopes so well founded, and so nearly realized, as was the case with the Misses Waties in their laudable exertions.

I am, sir, with respect, yours, &c.

Gideon B. Smith, Esq. Orlando S. Rees.

Reply to the above.

Mr. Skinner:

Sir,—As Mr. Rees has given permission for the publication of his interesting letter in the Farmer, I have thought it might be agreeable to you to accompany it with my reply.

The disease described by Mr. Rees, is undoubtedly what Dandolo calls the *tripes*, and the cause of it in the Misses Waties' establishment may certainly be attributed to the wet weather and the wet leaves. The following circumstances combined, or singly if excessive, will inevitably produce the disease: Very wet weather of several days continuance when the ordure of the worms is not carefully removed, bad leaves, wet leaves, and want of ventilation in high temperatures. In wet weather, if the hurdles be kept clean, the leaves fresh and dry, and a circulation of air obtained, there will be no danger of disease. But in wet weather, especially if it be warm, the leaves are apt to spoil, particularly if laid in piles or packed in bags; they heat, and fermentation, and putrefaction, take place in rapid succession—the common red mulberry leaf is particularly liable to these changes. Leaves in this state will inevitably produce the tripes, though the hurdles be kept ever so clean. The ordure of the worms is one of the most powerful absorbents known; from a dry hard state, when exposed to a damp atmosphere but a few hours, it becomes quite wet; fermentation and putrefaction, then successively and quickly commence, and the exhalation is terribly deleterious to the worms—it occasions the tripes, which terminates in the death of the worms before you are aware of its existence. The disease, I think, is not contagious—it is analogous to the high grades of bilious diseases incident to the human system, which owe their origin to precisely the same cause—decaying vegetable matter, acted upon by heat and moisture. Like those diseases, it becomes epidemic, sweeping off whole establishments, as in the case of the Misses Waties. The occurrence of disease among the healthy worms, after the removal of dead and diseased worms, is no evidence of contagion. If the sick and even dead worms are removed to a pure atmosphere, and some well ones with them, the latter will not contract the disease. I am not aware of any effectual remedy having been found for the tripes. There is one, however, which I shall try the first opportunity, and which I have great hopes will be effectual. It is the use of *chloride of lime*[*] in the laboratory, after the hurdles have been well cleansed.

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* The errors have been copied into that excellent journal, the "American Farmer," which renders this correction the more imperative. J. Lowell.

I will now proceed to reply to the queries contained in the above letter.

It is never safe to change the food of the worms, but when necessary it should be done with caution, feeding sparingly, and with fresh dry leaves. It is just as dangerous to change from red to white mulberry as the reverse. After two or three days you may safely feed freely. The disease most apt to follow an incautious change of food is the jaundice —the digestive powers of the worms not being used to such food, become disordered, and indigestion and jaundice follow.

Damp weather, when the leaves are dry and fresh and the hurdles clean, is not injurious; but the windows and ventilators should be closed, so as barely to admit a tolerable circulation of air. The stoves should be gently heated, or fire made in the fire places, which is better, as the worms will be more active than when left to the full operation of a damp atmosphere.

In hot dry weather (thermometer from 80° to 90° and upwards,) the windows and all the ventilators at hand should be opened—the reverse in opposite states of the weather.

I have never found heat injurious—81° is quite a moderate temperature for the worms to bear. I have every year had worms exposed to even 93° without injury; but it is necessary to keep the hurdles clean, and to feed fresh leaves, in such high degrees of temperature particularly. If there is no circulation of air, and the ordure is left on the hurdles, moist from feeding wet leaves, or from a previous spell of damp weather, then even 81° will certainly be injurious—it will produce tripes.

Relative to a second crop, if the eggs are put intu a cool cellar as soon as the moths cease laying, and kept there for a week or two, the natural heat of the atmosphere will be sufficient to hatch them; and no artificial heat will do it effectually before they are put in the cold place. A few will hatch without this resort, but the hatching will be rather too irregular for profit. Whether there are any kinds of worms whose eggs will not hatch the same summer they are laid, I do not know—I have never seen any such. Keeping the eggs during summer and winter in a cellar or even in an ice-house, will do no injury to the eggs or the worms. I have exposed eggs to the frost all night, where ice an inch thick was formed in the same place, and yet they produced as fine worms as I ever saw—I do not think it possible to injure eggs by frost in our climate. I always keep my eggs in the coldest place I can find in the cellar, summer and winter, and have no difficulty with them.

In conclusion, the failure of the praiseworthy enterprize of the Misses Waties on this occasion, is a most disheartening circumstance—they will, however, be able to guard against the recurrence of it in future. Mr. Rees says it was impossible to dry the leaves for such an immense number of worms—this is a mistake. Let the leaves be taken to a large room, spread out, and frequently shaken about—they will soon be dry. A supply for twenty-four hours should always be on hand, and in damp weather, enough for forty-eight hours, if not for three days, will be advisable. They must not lie in a heap, for they will ferment and putrefy; but must be shaken up four or five times a day—taking care always to feed the oldest gathered first.

I will here remark, that single cases of tripes occur every year in every parcel of worms, and that the disease only becomes formidable when it becomes epidemic. It has occurred among my worms frequently, and I have now every day to take off a dead worm or two from the hurdles, whose death was caused by this disease. Immediately after death, the worm, though it retains its full size appears soft, and of a dull yellow hue; it soon after is covered with small black spots, and ultimately becomes dark slate brown, and emits an excessively fœtid odour. These individual cases are caused by the same circumstances that cause the epidemic, but which are of limited extent and local in their effects.

Respectfully, Gideon B. Smith.

FRUIT TREES.

J. S. Skinner, Esq. *Kanawha, 15th June,* 1829.

The injuries sustained from canker, moss, black rust, incisions made by birds, and especially those resulting from the deposition of the eggs of various insects about our fruit trees, have induced several enquiries as to the best methods of avoiding those evils, and produced several valuable suggestions through your very useful paper. I have, however, met with nothing as efficacious as a simple application recommended to me a few years since by an old friend, who had long bestowed peculiar care on his orchard. It is prepared as follows: Take common soft soap, and dilute it with as much urine as will bring the mixture to about the consistence of paint mixed for use; with this preparation cover the bodies of the trees, and the larger branches as far as they can be conveniently approached, giving a good coat, and extending it down as low as possible. This preparation may be readily applied to the tree, with a mop made of sheep skin, with the wool on, or with the common paint brush, and may be increased to any desirable thickness by repeating the covering, after drying a short time. This covering will remain much longer than might be supposed, as it hardens from the influence of the sun and air: some of my trees which received a good coat more than eighteen months ago, yet retain a part of it. When applied to young trees of the apple, plum and cherry, it gave to the bark all the smoothness and vigour which is peculiar to the water sprout, and greatly accelerated their growth. I found it an admirable protection of the young trees, not only against the small spotted wood-pecker, and the whole family of insects, but also against rabbits, sheep and other animals, whose height did not enable them to reach above the coating. When applied to old trees, whose bark has become rough and loose, the bodies should be previously rubbed so as to disengage the dead bark.

My cherry trees were nearly lost by an almost universal covering of black rust, when I first used this remedy; they are now among the most vigorous and healthy within my knowledge. Although I have not made the experiment, I think the soap and urine would form a good dressing for old and rough barked grape vines, as I have found mine evidently invigorated by rubbing off the rough bark, and washing the vines with soap suds. Whether the alkali, the uric acid, or their joint combination, with a small portion of the muriate of soda, operates as a stimulant to the tree, I leave others to investigate; but the effect will be apparent to any who will try the experiment, in the increased growth of the wood, the luxuriance of the foliage, and in the increased quantity and quality of the fruit. L. T.

LADIES' DEPARTMENT.

Duty of Parents to Children, in relation to the Marriage of the latter.

From the "Theology" of the late Rev. Dr. Dwight.

"Parents can never lawfully compel their children to marry persons who are objects of their dislike; nor use at all, for such a purpose, that influence or those persuasives which operate upon tender and susceptible minds as the worst kind of compulsion. The reasons are plain. The child would be made miserable, and could not, in any event, without a prevarication, *of the same nature with perjury,* take upon himself the marriage vows. But, during the minority of his children, he may be required by *indispensable duty,* to restrain them from marrying in certain cases. This, however, is an *extreme* exercise of authority, and should take place *only* where the cases are extreme; cases, for example, in which the intended partner is an *infidel*—or *grossly vicious*—or of a *family scandalous for vice*—or in some other case of *similar* importance. In all inferior cases, the parent's duty is, in my view, confined to information, to persuasion, kindly and reasonably conducted; and to such delays of the intended connexion as will furnish opportunity to give these dissuasives their full operation.—In these cases children are bound to listen with the utmost willingness and impartiality to the parent's reasons, and deeply to feel and respect his pleasure. If the reasons are solid they ought to be influenced by their whole force, and, as far as may be, to overcome their own inclinations; remembering that, although their own happiness is the *first* thing to be regarded in forming such a connexion, that of their parents is the second; and that parental opposition to their wishes can rarely aim at any thing but their own good.—When children have used all reasonable expedients to bend their inclinations to the wishes of their parents, and are yet unable to subdue them, their *non-compliance can lawfully neither be punished nor resented.*"

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[*] Since writing the above, I have had an opportunity of trying the chloride of lime. The weather had been damp for a few days, and I somewhat remiss in my attention to the worms. On going into the room I found a considerable number dead, and many evidently diseased—there was no mistaking the nature of the disease—it was the tripes, and it had fairly become epidemic. The effluvium in the room was almost intolerable. I procured the chloride of lime, put about two large tablespoonsful in a plate with about a gill of water, placed it on the floor in the middle of the room, and closed all the windows and doors; this was about 9 o'clock at night. Next morning I went into the room, when to my astonishment, there was not the slightest taint of the effluvium to be perceived—the air was as sweet as that of any room in the house—and I could not perceive that a single worm had died during the night. I replenished the plate with fresh chloride, and have done so every evening since, and there is no appearance of the disease remaining. I communicated these facts to a friend, who has lost nearly his whole (a very large) establishment by the same disease. He tried it, and found that it purified the air in the room effectually; but he has not had time to ascertain its effects upon the diseased worms.

Chloride of lime is commonly known by the name of *bleaching salts,* is to be had at most of the chemical laboratories, and drug shops, and is a very cheap article—$12.50 per hundred pounds, 25 cents the single pound.

Though the above is a very imperfect experiment, from the limited time I have had to try it, I consider it important; and as it is very cheap and perfectly harmless, I have the less hesitation in recommending its trial.

ON REVISITING THE COTTAGE OF ROSA IN EARLY SPRING AFTER A LONG ABSENCE.

Seven summers have flown, and once more do I see
  The fields and the groves I deserted so long;
Scarce a bud yet appears on the winter-beat tree,
  Nor a bird yet enlivens the sky with a song.

For tho' spring has returned, yet the chilly wind blows,
  And the violets and daisies still hide in the ground;
But one dear little flower, one beautiful Rose,
  Here blooms and here blushes the seasons all round.

Thou pride of the plain, little queen of the grove,
  Still fresh is thy foliage and sweet thy perfume,
And still the bright object of Paridel's love,
  As when thy first buds were beginning to bloom.

And though fate has decreed that he must not aspire
  This blossom divine on his bosom to wear,
Yet still must he cherish the tender desire,
  And make thee forever the theme of his prayer.

Blow gently, ye zephyrs, be genial, ye showers,
  Bright and warm be the sky o'er thy dear native vale,
And may no bitter blast ever ravage the bowers
  That guard thy fair frame from the merciless gale.

And when the short season of blooming shall end,
  Which fate to the children of nature hath given,
May some cherub of beauty, to snatch thee, descend,
  And bear thee to bloom in the gardens of heaven.

SPORTING OLIO.

THE SNIPE.

This bird resembles the European snipe in plumage, shape, and habits; but, is said to be an inch shorter, and has sixteen tail feathers instead of fourteen. They arrive in Pennsylvania on their way north, about the 10th of March, and remain with us for three or four weeks. Most of them breed far north, though some remain in the northern parts of Pennsylvania and New York all summer.

On their arrival in the spring they are generally poor, but get in good order before they leave us: they return in September, and continue until December, when they go on to Carolina and Georgia, where they winter; there they find good feeding in the rice fields, and are very abundant. They frequent low and marshy ground, and like the wood cock, procure their food by boring. They are eleven inches long, and seventeen in extent, the bill is two and an half inches in length, and is not so strong as that of the wood cock.

Until the shooter becomes accustomed to this bird, he will find it difficult to hit, from the zig zag manner in which it flies when it first rises; he should wait until the bird is about to take a direct flight, when it will be found an easy shot, as a very slight wound will bring it down. When they are plenty, they afford excellent diversion, and are withal inferior to few birds for the table. They do not generally lie well for the dog, and where the grass in not very high he had better be dispensed with. A slow staunch pointer is preferable to any other dog, as the setter, from the quickness of his movements, is apt to flush them unexpectedly.—When they rise, they make a short quack, and rise to a considerable height; they then describe a circle or two, and drop suddenly into the spot where they intended to alight.

In the fall of the year, these birds get very fat, their trail is then thought, by many, to be equal to that of the wood cock.

Some persons have supposed, and for what reason I know not, that the snipe rises by its bill; he is certainly strong enough to rise in the same manner as other birds do, and I very much doubt if any person has ever had an opportunity of witnessing the fact in a satisfactory manner. When wounded, I have seen them attempt to rise, but did not perceive them use the bill for that purpose; as in regard to all other birds there are many erroneous, vulgar notions respecting them. [*Am. Shooter's Manual.*

Great Running by Selim, at Philadelphia, in 1767.

Mr. J. S. Skinner: *Marietta, June 26th*, 1829.

Sir,—According to promise you have an account of the race run at Philadelphia in the year 1767, by Selim and other horses. It is copied from the Maryland Gazette of Mr. Green, October 22, 1767; by him taken from a Philadelphia paper.

"On Tuesday last, the following horses started for the Gentlemen's subscription purse of one hundred guineas:

Samuel Gallaway, Esqr's bay horse Selim, - - - - - -	1	1
Mr. Leary's bay horse Old England,	2	dist.
Mr. Samuel's bay horse Granby, -	3	dr.
Mr. Andrew Orr's grey horse Northumberland, - - - - -		dist.

The first heat was run in 8 min. 2 sec., Selim winning from Old England by a single length. The second heat, after running three miles close at the heels of Selim, Old England flew the course."

The standard was 10 stone. Selim was then 8 years old, and carried 140 lbs. full weight. Old England and Northumberland were both imported.

It is believed that this running was never exceeded, if equalled, in this country. To form a correct judgment of the speed of a horse, the weight carried must always be recollected. If, as the old and experienced sportsmen say, seven pounds are equal to a distance, which is 240 yards, it follows that 14 pounds will make the difference of 480 yards, a space which would consume 32 seconds of time in running, at the rate of running at Philadelphia. Deduct this from 8 minutes 2 seconds, and it leaves 7 minutes and a half, in which the race would have been run if the standard had been 9 stone. I have never seen an account of a race where the 4 miles were run in 7½ minutes in the United States.

Figure beat Selim in 1768, at Upper Marlboro', but Selim was undoubtedly in bad condition, and had been lately cured of the distemper in the throat He was certainly a capital racer. I saw him beat the celebrated Silver Legs from Virginia. in the year 1772, at Annapolis, 4 miles and repeat. He was then 13 years old, and Silver Legs only nine.

With respect and esteem,

G. Duvall.

FISHING.

The morning is clear, and the sun from the east,
  Dispenses his beams to glad earth:
True rapture distends the gay husbandman's breast,
  Uniting firm labour with mirth.
Now, Angler! thy tackle prepare; to the stream,
  The scene of true happiness, haste:
And know, that the lives of those men are a dream,
  Their time who in idleness waste.

The scene is delightful; now fasten thy bait:
  And, while the cork floats, recollect,
That industry rises from small things to great:
  Her blessings then never neglect.
That Fly artificial, thy toil will repay,
  And, Severn! thy offspring deplore,
That man, e'en the swift finny race should obey,
  As panting, they drop on the shore.

Thy basket is ready—now, angler, repair
  To thy home, and consign to the cook
Thy labours—then feast on the delicate fare,
  Applauding thy rod, line, and hook.
Let the bowl, or the glass, now go gaily around,
  While temperance smiles on thy board,
And learn, that in exercise pleasures abound,
  Which riches can never afford.

MISCELLANEOUS.

LOCUSTS.

The Raleigh N. C. Star states that locusts have appeared in that vicinity in large numbers, and are daily increasing. They have, as yet, confined their operations to the forest trees, but fears are entertained for the safety of the fruit trees. The Edenton Gazette also relates, that they are destroying vegetation in every direction in that section of North Carolina.

J. S. Skinner, Esq.

Dear Sir,—The paragraph above, from the North Carolina Star, has been copied, by many of our northern papers; and is calculated to excite unfounded apprehensions of the destructive character of so unwelcome, though innocent a visiter. The name *locust*, seems to have been associated with desolation, and even famine, from the time of Pharaoh, to this day.

The locust belongs to the genus *gryllus;* but the species that constituted one of the seven plagues of Egypt, is not indigenous to our continent. The locust of the east, which, together with wild honey, sustained John the Baptist in his journey through the wilderness, is indeed a pest that sometimes marks its track over the whole continent, and so far as vegetation is concerned, may be said to be omnivorous.

The *cicada septemdecem* of the American continent, and that which has recently appeared in North Carolina, appears once every *seventeenth* year, from the middle of May to the first of June; but not in the same place at the same time throughout the continent. It sometimes pervades a whole state; or a part of two contiguous states. In other places it occupies two, three, or more counties; but reappears uniformly in the same places, after an interval of seventeen years, from the time of its last preceding appearance.

We commenced our observations on the progress and habits of this anomaly in entomology on the 17th of June, 1783; in the summit of the hill a few paces N.W. of the dwelling house attached to Dr. Birckhead's mill, on the Fall's turnpike. On the 17th June 1800, we visited the same spot, and found the locusts on the same trees; and lastly pursued the subject, and found them on the same boughs of the same oaks, on the 17th June, 1817. We will find them there again in May and June, 1834, (life and health permitting) when we propose to finish a long memoir, which is now far from being satisfactory, and I hazard this epitome for public inspection, rather with a view of eliciting than imparting information.

We omit a personal description of the insect with a view of giving a better hereafter. Those who have seen it, who will compare it with the Eastern locust, as it is delineated in Ryley's Narrative, will find no difficulty in discriminating betwixt the two species.

The locust ascends through the surface of the earth, about the 20th of May, and from that time till the middle of June; at first very slowly, and apparently almost torpid. When the soil is first broken it is scarcely animated, but it is soon invigorated, by the genial rays of the sun. Under the cordial influence of heat it gradually crawls up the nearest body, such as a tree, a fence, or side of a house, apparently instinctively, for thousands are devoured in the ground by rapacious birds and greedy hogs before they can acquire the use of their wings. When they first appear their wings are pressed close to the body, which is a perfect cylinder, exactly the diameter of the hole from which they crept. Thousands of these holes are to be found under the trees where they were deposited in embryo seventeen years before. No sooner can they expand their wings, than they are transported from tree to tree; the male in quest of the female, and afterward the female in search of a suitable place of deposite for her eggs.

There are two notes of the locust very distinct; one which is sharp and monotonous when they are molested, and is, we think, common to both sexes; another more variable and somewhat musical.—The latter may be aptly compared to the vibrations of the Eolean harp, for the whole tribe seems to keep time, observing all the pauses of a regular cadence. Such myriads of instruments in tune at the same time, soon tire the ear, and sometimes the melancholy strain is so general and almost incessant that all colloquial intercourse of society is not only interrupted but sometimes impracticable.—This musical talent, (if music it can be called) seems to be the exclusive prerogative of the male; and in this respect bears an analogy to the privileges of many species of birds.

The intercourse between the sexes, commences as soon as the power of locomotion is established, and continues about fifteen or twenty days, as a general rule, to which there are some exceptions, as well as to the time of emerging from the ground.

About ten days after impregnation, the female begins to deposite her eggs, by boring the softer extreme branches.

The minute perforations for this purpose resemble small gimblet holes, and are so numerous that the parts thus weakened, cannot be nourished by the circulating sap, and therefore soon wither, die and finally fall to the ground, if the wind should not break them before they decay entirely.

The eggs are thus deposited about four weeks before any sign of life can be perceived, but they soon assume the state of *larvæ* in which they enter the soil and descend into the earth. We know nothing of the *chrysalis* state which proceeds beneath the surface, beyond our view, and from which they seem recently to have emerged, at their resurrection, after the lapse of seventeen years.

After the first process of procreation, the male begins to decline, droops and soon dies. A similar state of weakness, and decay is to be observed in the female as soon as she shall have ceased to deposite her eggs. They adhere to the boughs of the tree, for three or four days, and either die there or fall to the ground, and there afford a rich repast to hogs, turkeys, and other rapacious animals. Hogs often fatten on them. They neither return to the caverns whence they ascended, nor take flight to other regions as has generally been imagined. The progress we have described terminates their existence after they have left the rudiments of the next generation, to be revived and act a similar part at the expiration of seventeen years.

The trees usually selected are the oak in all its varieties, the chestnut, the poplar, hickory, beach, and perhaps some others. The oak has either some peculiar attraction, or is fixed upon because it is more general. But few of the fruit trees are subject to the laceration of their softer extreme branches, by the female, as a nidus for her eggs. We have remarked a few of the boughs of the apple, cherry, and peach trees in a state of decay, from this cause, but as far as our observation will permit us to speak, very rarely. The injury inflicted upon vegetables, is not effected by eating the leaves, like the Egyptian locust, and stripping them of their verdure, like a swarm of caterpillars; but solely by the process of nidification we have noticed. In about a week or ten days after the small limbs have been pierced by the proboscis of the female, the limbs begin to fade, wither, and soon die, according to the degree of heat and moisture of the atmosphere.

After the eggs have been laid, they remain gradually swelling about six weeks, before they discover the least sign of animation, though the progress to the living state may be perceived sooner, by breaking them, before the larvæ are completely formed. As soon as the capsule covering the ovum is broken, the insect is not only highly animated, but acquires the locomotive power almost immediately under its new form. It is seen creeping at first from its cradle down the body of the tree, or has fallen to the ground at its exit. We have seen thousands on the same limb, but they are scarcely ever seen on the ground, unless by tracing their descent from the tree, and by a long and vigilant observation; their progress is directly from the tree into the earth, upon which they remain no longer than they can find a spot fit for inhumation. After watching many hours, and sometimes half a day, we have never seen one of them at rest on the ground. When they commence their journey to their subterraneous abode, they acquire increased velocity, and they are no sooner in contact with the surface than they penetrate the soil with a celerity incredible to those who have not witnessed it. They seem to be in their proper element the instant they touch the earth, and such is their agility, that they descend at the rate of more than an inch for every second, as far as they can be followed. On the 20th of August, 1817, we invited several gentlemen to attest this fact in Howard's park, and among others the venerable and lamented proprietor. We picked a dozen of the larvæ from an oak, and placed them on the ground: they descended so rapidly that they could not be overtaken by pursuing them by digging with a common case knife. They were found by raising the whole sod around them with a spade or grubbing hoe. We covered a pine board with fresh soil, six inches thick, and put four of the insects upon the surface; in a little more than a second they were found arrested in their progress in contact with the board; and when brought back to light, writhed in all manner of contortions, seemingly as much distressed as a fish would have been out of water.

When the insect leaves it birth place, it is about the eighth of an inch long, of a reddish brown colour, inclining to purple, and is nearly as broad as a millepede, which it strongly resembles, except that it is a little longer. It resembles the wood-louse in another respect. Viewed through a good glass, it discovers almost as many feet as are seen in the other by the naked eye.

The locust sloughs and leaves its exuviæ on the trees, or on the ground, we think, soon after they acquire new life from exposure to the genial influence of the sun, but at what precise time we are uncertain. Perhaps some better naturalist, or more accurate observer, may furnish more facts and further illustrations of the abstruse character of this solecism in natural history. We would respectfully propose the following queries?

1. Has the locust been found after its descent into the earth?
2. And if so, in what size?
3. And form?
4. At what depth? and
5. In what place?

Any information will be thankfully received by us, on any point respecting the natural history of the cicada septemdecem, and due respect will be paid to the author, who, unless he can make a better use of it, will find it embodied in our memoir on some future occasion.

The silent residence of the locust in the earth during a period of *seventeen* years, is, we believe, without a parallel in the whole scale of animated nature, but does it not bear some analogy to the final resurrection of the human body, of which it seems to be emblematical. Its destiny is fixed, by a law of the great Maker of heaven and earth, and all that in them is, and their long and darksome abode in the regions below, and their apparent resurrection, may afford a solemn theme for reflection to those who believe that death is an eternal sleep. If an insignificant worm can remain seventeen years, incarcerated and invisible in the caverns of the earth, and then arise to life and vigor in the regions of light, by a decree of Omnipotence, why should not man, the most noble of his works, rise again, though he die in corruption, to glorious immortality?

With the best wishes for the prosperity of the American Farmer, and for your long continued health and usefulness, believe me, dear sir,

Yours, very truly, NATH'L POTTER.

Lexington street, June 24, 1829.

OBJECTIONABLE PHRASES.

MR. EDITOR:

One of the *Croaker* Family will thank you to insert the following list of words and phrases, to which he objects:

"He *done* so." I desired him to read, and he *done* so—instead of the *did* so. New York, Pennsylvania.

"*Beautiful*"—beautiful wine, beautiful steak, pudding, &c.! Massachusetts.

"*Had n't ought*"—You had n't ought to speak ill of the dead; for ought not. Ditto.

"*Likely*"—A likely man—meaning agreeable, clever, amiable, although as ugly as sin. Conn.

"*Ugly*"—Cross, crabbed. Mass. Conn.

"*Improve.*"—(R. I.) A man who occupies a hired house is said to *improve* it, although he may be destroying it.

"*Avocation*" is beginning to get into use as synonymous with *vocation*. U. S.

"*Lengthy*"—A great favourite for *long*—Why not *breadthy* for very *broad?* U. S.

"*Gunning*"—Hunting with gun is called *gunning*; then with dogs only, it ought to be going a *dogging*. Md., Va.

"*Plunder*" for *baggage*. Kentucky.

"*Travel*" for travelling. House Rep. &c.

"*Clever*"—A clever horse, clever house, &c. for handsome. Md. Va.

"*Which?*" for what. One does not understand you, and asks *which?* Penn.

"*Stud*" for *stud-horse*. Md.

"*Store*" for store-*house*, ware-*house*. U. S.

"*Carriage*" for coach, &c. U. S.

"*Turnpike*," a gate, now means an improved road. U. S.

This list might be greatly lengthened. I do not meddle with the technical terms of merchants, who will continue, I hope, to say, that *wheat* is "*looking* *up;*" that cotton is "*a shade* higher," &c. It is the duty of you gentlemen editors to make *war* on all innovations of this kind, and to correct the procedure.

"*Fair*"—a fair man--fair wine—my servant, although black, is a *fair man.* *John Bull.*

He also objects to the division of our states. It is bad enough to have a *North* and a *South* Carolina—we do not want "*East* Tennessee" and "*West* Tennessee, &c. If we go on in that way, we shall puzzle foreigners, and, after a while, not understand ourselves. He supposes it is now settled that men no longer write "*under* their names," but "*over* their signatures," and still give deeds "*over* their hands and seals" at least during the "*coming*" administration.

The Baroness Humboldt.—This distinguished lady has lately died. She was the companion of her husband, it is said, in all his scientific voyages, and lent the aid of her rank and education to countenance learning abroad, as well as extended patronage and encouragement to genius at home. Her loss, it is remarked, will be felt by many young artists, whose patron she was.

THE FARMER.

Baltimore, Friday, July 3, 1829.

[We beg leave to call the attention of our readers to the prospectus of a work, which is about to be published by Mr. F. Lucas, jr. of this city, entitled, "An Elementary Treatise on Natural History, &c." to which we have been induced to give a place in our sheet, because of the general interest which, we think, belongs to its subject. We unite with the author in the expression of our regret, that the study of natural history should be almost entirely neglected in our schools; and we will add, that the work which is now announced, may certainly go a great way to make up for this deficiency, even as regards those to whom any future improvement in this respect could be of no avail.

The advantages and delight afforded by an acquaintance with natural objects, are acknowledged by every man of a liberal education; and there is no one who has not every day occasion to lament, in his walks, or even in his professional pursuits, his ignorance of the name, nature, and properties of a multitude of interesting objects that surround him. But, whilst he is every day, nay every hour, lamenting this deficiency in his acquired knowledge, why is there, seemingly, so little exertion made to fill up the blank? We might venture to suggest, that it is owing to the want of precisely such a work as is now offered; for, strange as it may appear, there is not one of the kind in the English language; that is, published since the adoption of the recently improved classifications of animals. On each branch, or division, of the general subject of Natural History, there are many and very excellent treatises; but there is no single work, comprising, in a condensed form, the principles, and, we might call them, the characteristic symbols of each department, so as to enable the student or general reader, with very little sacrifice of time and attention, to arrive at a knowledge of any individual object which may for the first time present itself to his notice. Viewed in this light then, the work which is now offered, is calculated to be useful to all classes of the community, but more particularly so to the resident in the country. We, therefore, sincerely believe, that we are rendering a service to our subscribers, by recommending Professor Ducatel's Elementary Treatise to their most liberal patronage.]

An Elementary Treatise on Natural History; expressly designed for the use of Universities, Colleges and Academies in the United States. Translated from the French of Duméril: with additions and alterations suggested by the more recent discoveries; notes illustrative of the text; and a concise account of the Natural History of North America. To which is added, a full Catalogue of Foreign and American works of reference. By Julius T. Ducatel, Professor of Mineralogy and Geology in the University of Maryland, &c. &c.

The above work is offered to the American public from a conviction, that a Treatise of the kind is much wanted in the schools of our country; and in the full confidence that the one which is now offered, as it appears in the original French, is decidedly the best that can be put into the hands of the student. It was originally composed by order of the French Government, and designed for the use of its Lycæums. Since 1805 it has gone through several editions, and is still the text-book, in those schools.

As a naturalist, Mr. Duméril holds a pre-eminent rank on the list of industrious and ingenious philosophers, who, from the centre of the scientific world, Paris, have thrown so much light upon the wonderful operations of that sublime machinery of nature, by which man is surrounded. Of the phenomena consequent upon these operations, those that relate to living bodies generally, are certainly the most deserving of being inquired into; and it is much to be regretted, that this important and interesting branch of human knowledge, should be so much neglected, as scarcely ever to form, in the institutions of this country, a part of their systems of education. It is with a view, therefore, of facilitating the means of filling up this *desideratum* in our collegial course of studies, that the translation of Duméril's "Traité Elémentaire d'Histoire Naturelle" has been undertaken.

The American translator has nothing to say, as regards his own labours, further than that he has studied to attain that accuracy, and at the same time ease of style, which are indispensable, to give merit to a translation. He has, moreover, endeavoured to add to the value of the text, by inserting in it, for the benefit of the American student particularly, an account of such natural bodies and animals, as are peculiar to this country. This information he has principally derived, for the *Mineralogy* and *Geognosy* of North America, from the publications of Cleaveland, Maclure, Cooper, Eaton, Torrey, Hayden, Vanuxem, Troost, Keating, &c. and the papers contained in Dr. Silliman's excellent Journal of the Sciences:—for the *Botanical part,* he is indebted to the labours of Michaux, Pursh, Nuttall, Barton, Bigelow, Elliot, Muhlenburg, &c. &c.--and in the Zoological department, to those of Mitchill, Wilson, Charles Lucien Buonaparte, Leseur, Say, Harlan, Godman, Dekay, &c. &c. and the many classical descriptions of American animals, to be found in the Journals of the Academy of Natural Sciences of Philadelphia, of the Lyceum of New York, &c. &c. In a word, the translator has spared himself no trouble, to make the work as complete, in this latter respect, as might be deemed necessary.

CONDITIONS.

The work will be published in one volume, 8vo. of 500 pages, containing *Mineralogy and Geognosy, Botany* and *Zoology.*

Note.—The additions and alterations will consist in a much fuller account of *Rocks;* a distribution of fossil organic remains; the adoption of professor Cleaveland's arrangement of minerals, in place of that followed in the original; the insertion in the text of the American *genera* and *species* of animals; many critical notes; and a catalogue of foreign and American references.

There will be attached to the work about 35 plates, executed in the best style, representing upwards of 500 figures, illustrative of the theory of crystallization; the characters which have served for the classification of living bodies, &c. &c.

The volume will be put to press as soon as a sufficient number of subscribers shall have been obtained, to whom it will be delivered, when published, for four dollars, in boards.

Public Institutions, Colleges, Academies, &c. subscribing for 10 copies, or upwards, will be allowed a liberal discount.

Subscriptions received by the publisher, F. Lucas, jr. Baltimore.

Baltimore, June, 1829.

Straw Paper—*A New Article.*

J. S. Skinner Esq: *Chambersburg, May 23,* 1829.

Dear Sir,—I send you a sample of the straw paper, manufactured at the mill of McDonald and Ridgley, near this place; this sheet on which I now write was in straw yesterday. It would suit printers for wrapping paper, particularly, when their papers are sent a considerable distance—you know the common wrapping paper with which the printers generally inclose their papers, by the time they travel two or three days in the stage, you have difficulty often in reading the directions. The price per ream, will not exceed two dollars medium size—you may let ink, or water remain on this paper for some minutes, and you can write on the other side; perhaps you can get your printers to use it; at least for a part of their business. The paper would answer for post offices well—but I think it would suit printers better. With respect, your friend,

John Findlay.

[For the purpose of testing it the better, we have sent some packets to distant places, and requested postmasters to return the envelopes that we may see how they bear the *froissement* of the mail.]

Salem County (N. J.) Agricultural Society.

At a stated meeting of the Society, held at the Courthouse in Salem, on Tuesday the 15th day of April, 1829, the following persons were duly elected Officers of the Society, for the ensuing year:

Robert G. Johnson,	*President.*
Samuel L. James,	*1st Vice-President.*
Joseph Kille,	*2d Vice President.*
John Thompson,	*3d Vice-President.*
Thomas Yarrow,	*Corresponding Sec'ry.*
Francis L. McCulloch,	*Recording Secretary.*
T. Jones Yorke,	*Treasurer.*

Township Committees.

Salem—Edward J. Keasby, *chairman,* Thomas Sinnickson, Joseph Kille, John Sinnickson, Edward Smith, John Tuft.

Upper Penn's Neck--Lewis Green, *chairman,* Richard Somers, Jacob Goodwin, David Scull, Joseph Black, Hudson A. Springer.

Eluoborough--John M. Sinnickson, *chairman,* John Thompson, William Hall, Clement Hall, Morris Hall.

Mannington—William Carpenter, jun. *chairman,* John Denn, Elisha Bassett, Josiah Miller, Joseph Bassett, jun., George Hall.

Pilesgrove—Paul Scull, *chairman,* Josiah Shull, Nathaniel Robins, Samuel Johnson, Samuel Somers, Jonathan Cawley.

Lower Penn's Neck—Joseph Lippencott, *chairman,* Samuel L. James, Samuel Gilmore, Thomas F. Lambson, William Johnson, David Ware.

Upper Alloway's Neck—Stacy Lloyd, *chairman,* Josiah M. Reeve, Isaac English, James Patterson, Ellis Ayres, Judah Herritage.

Lower Alloway's Creek—Stacy Lloyd, *chairman,* Daniel Tracy, John W. Markell.

(Signed,) Francis L. McCulloch,
Rec. Sec'ry.

☞ Mr. Prince, proprietor of the Linnæan Botanic Garden, near New York, is very anxious to obtain *seeds* of the *Vitis Riparia*, or sweet scented grape of Ohio, as but one sex is at present known to our gardens, and in consequence no fruit is produced. The seeds can be transmitted to him by mail, and such favour will be cheerfully reciprocated.

Baltimore Market.—There has been a depression in the prices of flour since our last of from 37½ to 50 cents a barrel. Howard street was $5.50 from the wagons yesterday, and it was generally considered worth $5.75 from stores, though many holders prefer holding on to selling for less than $6 *a* $6.12½. Grain.—There has been a few cargoes of new wheat in market. One cargo of rare ripe wheat from the Rappahannock, was sold for $1.32, and another of red wheat at $1.25; but these prices are by no means indicative of the value of the article. The first was a superior lot, and was wanted for a particular purpose, and both were early in the market, which induced buyers to advance considerably in their offers. Our quotations, therefore, of wheat may be considered nominal, as there are no two persons who agree in their estimate of the value of it. We have endeavoured to adopt a medium between the extremes of the rates given us. Live Stock.—Beef on the hoof is very dull, and the prices further depressed—our quotations probably embrace both extremes.

☞ There has been no intelligence from Europe since our last.

Prices Current in Boston, June 26.

Apples, best, bbl. $.3.00 a 5.00. *Beans*, white, bushel .90 a 1.00. *Beef*, mess, bbl. 10.25 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 6.75 a 7.00; Genesee, 6.75 a 7.00; Rye, best, —. *Grain*, Corn, bush. .56 a 60; Rye, .70 a .60; Barley .67; Oats .40 a .42. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 16.00 a 16.50; Navy, mess, 13.00 a 13.50; Cargo, No. 1. 13.00 a 13.25. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top .62 a 1.00; Luceene, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool*, Merino, full blood, washed, .27 a .35; do. do. unwashed, .18 a .22; do. three-fourths, washed, .25 *a* .30, do. half blood, .22 *a* .25; do. quarter, washed, .20 *a* .22; Native, washed .18 a .20; Pulled, Lambs', 1st sort, .35 a 37; do. 2d sort, .22 a .25; do. spinning, 1st sort, 27 a .30.

Prices Current in New York, June 27.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .9½ a .12; Upland, .8½ a .10½; Alabama, .9 a 11. *Cotton Bagging*, Hemp yd. .18 a .21; Flax .14 a .17. *Flax*, American, 8 a 9. *Flaxseed*, rough, tierce ——; clean ——; *Flour*, N. York, bbl. 6.25 a 6.37½; Canal 6.00 a 6.37½; Baltimore Howard st. —— a 6.50; Richmond city mills, —; country, 6.00 a 6.12½; Alexand'a, 6.00 a 6.25; Fredericksburg —— a 6.00; Petersburg, 6.00 a ——; Rye Flour, 3.62½ a 3.75; Indian Meal, per bbl. 2.37½ a 2.50; per hhd. 13.00 a 13.25. *Grain*, Wheat, Virginia 1.12 a 1.20; N. Carolina, ——; Rye, North, 66 a 67; Corn, Yel. Nor. .50 a .55; Barley, .54 a .55; Oats, South and North, .30 a .36; Peas, white, dry 7 bu. —; Beans, 7 bu. 8.00 a 8.50. *Provisions*, Beef, mess 9.75 a 10.25; prime 7.50 a 8.25; cargo 6.00. Butter, N. York, —— a —; shipping, .8 a .11; Lard, .5 a .6; Pork, mess 12.50 a 13.00; prime 9.75 a 10.12½, cargo 9.00 a ——; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* .2½ a .3. *Tobacco*, Virginia .3½ a .5½ a .6½; Kentucky, .3½ a 5½ a .6½. *Wool*, Merino, American fleece, .32 a .36; Pulled, .32 a .35; common, .18 a .25; Pulled, spinning, .18 a .33.

Prices Current in Philadelphia, June 29.

Bees-wax, yellow .22 a .23; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10.50 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .8 a .8½, No. 2, .5 a .6; *Cotton*, New Orleans .11 a .13, Upland 9. a .10½, Tennessee 9. a .10½, Alabama 9. a 10½; *Feathers*, South. .32 a .33, West. .30 a .31; *Flax* .7¼ a .7½. *Flour*, super. 6.25 a ——, fine 6.00; Rye 3.62 a 3.75; Cornmeal, hds. 12.00 a ——, bls. 2.18 a 2.25; *Flaxseed*, cask —— a ——; bu. ——; *Grain*, Wheat 1.25 a 1.30; Rye .60 a.65, Corn l. c. white, .44 a .46, l. c. yellow, .47 a .48, u. c. round, .49 a .51; Oats .33 a .40, Barley, Pa. .— a .—; do. East. .55 a .60; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western .8 a .9; *Hemp*, 210; *Lard*, .5 a .8; *Oil*, linseed, .78 *a* 79; *Pork*, mess, 13.00 a 13.25, prime 11.50 a 12, cargo 10.00 a 10.50; *Rice*, 2.75 a 3.00; *Tobacco*, Kentucky .3½ a .6, Virginia .4½ a .7; *Wool*, common washed lb. .26 a .28, half blood 28. a .31, three quarters blood .31 a .32, full blood .34 a .38; unwashed, generally 10 cents less, according to quality.

FOR SALE,

Very superior GRAIN CRADLES for heavy grain, though not approved by some in light grain, as they are made with four fingers only—Also superior Scythe Rifles.

July 1, 1829. J. S. EASTMAN.

AGRICULTURAL IMPLEMENTS AND SEEDS.

The subscribers offer for sale a general assortment of Agricultural Implements, comprising a great variety of improved Ploughs, Harrows and Cultivators—Wheat Fans, with improvements recently introduced—Corn Shellers, the gearing of which is so improved as to run light and be very durable—a few boxes of superior Darby Creek and Indian Pond Scythe Stones—Patent spring steel Hay and Manure Forks. Ruta Baga, and white flat Turnip Seed—a few bushels of Buckwheat.

SINCLAIR & MOORE,
July 1, 1829. Pratt-st. wharf, Baltimore.

ORCHARD GRASS SEED.

The subscriber has for sale from three to four hundred bushels of Orchard Grass Seed, raised by Mr. Edmund Evans, near this city, and will be warranted very superior.

July 1, 1829. J. S. EASTMAN.

GREEN-HOUSE PLANTS.

Orders for Green-House Plants from the magnificent collection of Messrs D. & C. Landreth, Philadelphia, received by the subscriber.

The plants are cultivated in pots, which therefore, admits of transporting at the present season with perfect safety. All orders will be carefully attended to,—packed in boxes and received by the steam-boat line.

The collection of the Messrs. Landreth's is not surpassed by any in the Union, and comprise the most beautiful, both native and exotic. None are sold by them unless in perfect health, and the prices at which they are offered very reasonable. Catalogues may be had *gratis* on application.

Also, a constant supply of the Messrs. Landreth's GARDEN SEEDS, grown and warranted by them.

The subscriber has likewise on hand his usual assortment of AGRICULTURAL IMPLEMENTS, such as Davis' Improved Patent Ploughs; Clery's Patent Improved Scotch Ploughs; Improved Bar Share Ploughs; Substratum do. and Shovel do.; Cultivators; Wheat Fans; Hay Rakes; Straw Cutters; Swingle Trees; Oil Stones; Patent Scythe Rifles, Cast Steel Axes, &c. &c. All the castings for the Davis' and other Ploughs sold by him, constantly on hand to supply the place of those worn out—but he does not furnish castings for making new ploughs. JONATHAN S. EASTMAN,
No. 36 West Pratt street, Baltimore.

N. B. Wanted, immediately, two apprentices at the above business—one fourteen and the other sixteen years of age. J. S. E.

McKIM'S GENUINE CALCINED MAGNESIA.

The proprietors of the Maryland Chemical Works, can with confidence, recommend this article to the public as *pure*, and equal in all respects to any of the imported article, and at about *one half the price*; it is carefully put up in convenient sized bottles, and is offered for sale by all the Druggists in the city, and at their Warehouse No. 69 South street, Baltimore.

ALMANAC.

1829. July.		Sun. Rises.	Sun. Sets.	Length of days.	Moon Sets.
		H. M.	H. M.	H. M.	H. M.
Saturday,......	4	4 39	7 21	14 42	9 32
Sunday,........	5	4 39	7 21	14 42	10 3
Monday,........	6	4 40	7 20	14 40	10 32
Tuesday,......	7	4 40	7 20	14 40	11 2
Wednesday,..	8	4 40	7 20	14 40	11 32
Thursday,.....	9	4 41	7 19	14 38	morn.
Friday,.........	10	4 41	7 19	14 38	0 3

Moon—First Quarter, 9th, 1 h. 24 m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Tobacco.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 5.00—red, 5.00 *a* 6.00—fine red, 7.00 *a* 8.00, for wrapping 5.00 *a* 10.00—Ohio, common, 5.00 *a* 8.50—good red 6.00 *a* 12.00—fine yellow 10.00 *a* 20.00—Rappahannock, 3.00 *a* 3.50—Kentucky, fine 4.00 *a* 5.00—wrapping, 4.50 *a* 7.00.

Flour—best white wheat family, $7.00 *a* 7.50*—superfine Howard-st. 5.75 *a* 6.00 city mills, 5.50 *a* — Susquehanna, -—. Corn Meal, bbl. 2.50—Grain, best red wheat, new 1.05 *a* 1.10—best white do. new 1.20 *a* 1.25; ord. to good, .60 *a* 1.00--Corn, white, 45. *a* .46; yel. .45 *a* .46—Rye, .53 *a* .55—Oats, .28 *a* .33—Beans, 1.00 *a* 1.25—Peas, .55 *a* .60—Clover seed, 3.25 *a* 3.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a*.50 lb.—Barley, .45 *a*.50—Flaxseed, 1.20—Cotton, Virg. .9½ *a* .10—Lou. .11 *a* .12—Alab. .9 *a* .10—Mississippi .10 *a* .12—North Carolina, .8 *a* .9—Geo. .9 *a* .12—Whiskey, hhds. 1st pf. .23—-in bbls. .24 *a* 25—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 3.75 *a* 4.00; No. 2, 3.50 *a* 3.75—Mackerel, No. 1, 6.50; No. 2, 6.00; No. 3, 4.50—Bacon, hams, Baltimore cured, .10 *a* 11; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .29—Plaster Paris, cargo price per ton, $3.50, ground, 1.25 bbl.—Prime Beef on the hoof, $5.00 *a* $5.75.

*Seven dollars and fifty cents by the single barrel, for Ellicotts' Patapsco white wheat family flour.

Marketing.—Raspberries, 12½ *a* 18¾ per quart; Cherries, 3 *a* 10 per qt.; Currants, 6¼ per qt.; Blackberries, 8 *a* 10 per qt.; Cucumbers, 10 *a* 12½ per doz.; Beans 18¾ per peck; Peas, 12½ *a* 25 per peck; Squabs, 18¾; Butter, lb. .20 *a* 25; Eggs, .16 *a* .18¾; Potatoes, Irish, bush. 1.00 *a*——; Chickens, doz. 2 *a* 3.00; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .87½ *a* 1.00; Sausages, lb. .8; Pork, 5.50 *a* 6.00 cwt.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

A NEW TREATISE UPON WOOL AND SHEEP.

Translated from the French by the Editor of the American Farmer.

(Continued from page 114.)

Section 5.

Of the connexion between the properties of Wool and certain external circumstances.

After having shewn how the divers properties of wool are connected one with another, and how they depend on the condition of the body and of the skin of the sheep; we apprehend it may be useful to indicate, without more delay, the accidental circumstances which most frequently alter some one of these properties, and thus cannot fail to injure the wool in the mass.

But in treating of the influence of certain exterior circumstances, upon wool, our intention is not now to enlarge upon the different treatments which this primary matter should undergo in the hands of the washer and the manufacturer; we will limit ourselves to considering it in its growing state. It is in that condition that one in general can best judge of it; all the characteristic signs appear then at once, and furnish precious indications for appreciating in the most certain manner its real merit.

The exterior circumstances which are usually prejudicial to the qualities of wool, in its growing state, are: 1st, Humidity. 2ndly, The heat of the sun. 3rdly, The presence of external bodies which attach themselves to it. 4thly, The rumpling (*froissement*) to which it is exposed.

Humidity is more or less injurious according to its nature, and according to the degree of heat with which it is accompanied.

Hot and humid winds, the fog, the dew, rain, snow, the accidental immersion of the animal, and lastly, the habitual action of the urine and of excrements; such are the causes which most frequently subject the fleece to the pernicious effects of humidity. It is in vain that nature seems to have sought to guard the fibre of wool against the influence of humidity, in imbruing it with those oily matters that we call greasiness and surge, (*suint et surge.*)

We already know that pure and cold water is of itself sufficient to dissolve *le suint*, (the yolk or exterior grease,) and the *surge* itself, or grease which inheres in the fibre, as we shall presently shew cannot defend the fibre against the serious changes effected in it by the influence of urine and excrementitious accumulations, (*les crottins.*)

Water renders the fibre coarser by dilating it; it renders it for the moment more supple and more susceptible of extension—in a word, it partially destroys its character. These facts will be evident to all observers who will take the trouble to establish them. The cause of increased coarseness of the tube consists, according to all appearance, in the faculty of absorption, by means of which its pores imbibe more or less of humid particles. That of a greater susceptibility of extension does not appear to us so easy of explanation, and, without recurring to any doubtful theory, we will content ourselves with relating the fact, remarking only that this susceptibility had already been acknowledged, since we find that in the writings of our naturalists that it is in a dry hair, compared to a wet one, as five to thirty-five. As to the alteration that the character of the fibre undergoes when it has been wet, it seems to us to explain itself by the dilation, and by the augmentation of suppleness that it has acquired.

This alteration will, without doubt, not be very remarkable, if it takes place, (*s'il s'agit*) or acts upon fibres of wool united in a lock, which one has moistened and left to dry, with precaution and without deranging them; but it will be very apparent in the case where these precautions have not been taken.—The humidity of it augmenting the weight at the end of the lock, almost always charged with excrement, occasions a tension, which also contributes much to efface the character of the fibre.

But it will be asked if the various effects upon wool, attributable to humidity, will exist after the wool shall have been properly dried?

We cannot but answer affirmatively to this question. The traces left by humidity on the fleece in its growth, are as evident as they are pernicious: at the same time that the water has dilated the tissue of the fibre, the nourishing juices of the latter have been taken to refil the great void which this dilation has caused in the interior of the tube in such a manner that even after the evaporation of the humidity the fibre remains coarser than before. The tension occasioned by the weight at the end of the lock, when it has been wet, having exercised out of proportion or measure the faculty of suppleness which the moistened fibre had acquired, and having effaced in part its character, it results that the fibre will necessarily have lost, never to regain, a part of that strength, and of that elasticity of curl, (*du frisé,*) which, as we shall hereafter see, is so useful to it in the operation of felting (*feutrage,*) or fulling—In a word, the water having partially dissolved the greasiness (*suint*) which laid over or covered (*enduisait*) the fibre, the heat of the sun in drying it, has crisped it more easily, and it will have become so much the less soft and flexible, as it has been more frequently in turns wet and dry. The effects of humidity are not less prejudicial upon wool separated from the body of the sheep, and though the water has thickened the tube by dilating it, it seems that the wool after having been dried, resumes very nearly its original fineness; nevertheless it cannot be affirmed that it has completely done so; and some experiments, the results of which are not sufficiently conclusive to be mentioned here, incline us to believe that it would not be without detriment to its fineness, that one could wash wool even in pure cold water and leave it to dry, many times in succession. Humidity proceeding from urine and from excrements, produces upon wool in its growth, effects still more pernicious than those we have described. These matters are endowed with a corrosive faculty, which attacks the surge, (the grease which inheres in the fibre itself, *le surge.*) Their action is so much the greater as it is permanent; it alters the colour of the fibre, in staining it, of a pale yellow colour at first, then more and more dark until it becomes almost black. These various shades denote a progressive deterioration of the substance of the fibre, which is sometimes decomposed to the point of losing all its strength, and of breaking as easily as a piece of straw which is found on the dung hill after fermentation. Independently of the ordinary effects of humidity, which are the causes of rendering the fibre coarser, and the alteration of its elastic faculties and of its character, urine and the excrements occasion then, the alteration of its colour, and the deterioration of its very substance. It is in effect that which we constantly remark on the fleeces of beasts whose litter is not kept fresh and in good order; the wool of the belly and thighs is yellow, coarse and dry. The end of every lock on the flanks and elsewhere carries a humid accretion of excrement, in the interior of which we find the ends of the fibres, without *character*, without *fineness*, without *strength*, and often in a state bordering on decomposition.

Until now we have spoken only of the direct influence of humidity upon the fibre; that which it exercises indirectly upon the wool, in attacking the condition of the skin first, and then the health of the animal, may be yet more hurtful. In fact it is indubitable that the skin absorbs a considerable quantity of humidity, which has a tendency on the one hand, to relax its tissue, and to enlarge its pores; and on the other to be the principle of a great number of maladies. Humidity has in many sheep folds been the cause of the loss of entire flocks; and it is in a great measure to this cause that we must attribute the ravages of the watery cachexy—an ill habit of body proceeding from the bad disposition of the fluids and humours—but we will return by and by to this subject.

The heat of the sun tends to dry up a part of the greasiness (*suint*)—existing in the fleece, and consequently to alter the qualities of softness and suppleness of the fibre. Its influence, as we have already remarked, is particularly injurious when it takes place upon wool which has been wet; for the wool having been thus deprived of a portion of grease (*suint*) which protected it, becomes so much the more susceptible of being *dried* and *hardened* by the effect of ardent heat.

The external matters, the presence of which is most habitually injurious to wool, are: *First*, the dung of sheep folds—*Secondly*, sand, earth and dust—*Thirdly*, the broken remains of fodder and straw litter.

In treating of the effects of humidity upon wool, we have spoken of the pernicious influence of dung which attaches itself to the extremity of the locks of the fleece, we have nothing to add at present to what we have said on that point.

The light sand which composes almost exclusively the soil on the borders of the sea, lifted and carried in all directions by winds as violent as they are frequent, is easily introduced into the fleece where it attaches itself and accumulates the more in proportion as the fleece is finer, more curled, and its grease more abundant—The quantity of sand with which the fleece is sometimes charged, is so considerable, that on separating the locks it is not possible to see the skin. The sand absorbs at the same time, 1st, the moisture or transudation of the skin which is destined by nature to contribute to its suppleness; and 2ndly, the grease (*suint*) which performs the same functions in regard to the fibre. It opposes itself too, to the natural connexion of the fibre in every lock, a connexion on which depends in a great measure, the regularity of character. It contributes also in a manner yet more marked, to the alteration of this character, in mixing itself with the excrement which already adheres to the end of the lock, and in adding, by an augmentation of weight, one degree more of tension to the fibres that compose it.

Perhaps also it may be proved that sand opposes itself to the natural play or operation of the air and of light, as much upon the interior of the fleece, as upon the skin itself—and we are not ignorant how much their influence is necessary to the development of bodies in general. The neighbourhood of the sea shore exposes the royal flock of Perpignan, to all the inconveniences we have specified, and the quality of the wool furnished by this flock incontestibly suffers by such exposure.

Earth and dust produce effects analogous to those of sand. It is during the sojourn of flocks upon certain kinds of soils, that these foreign matters find opportunity to introduce themselves into the fleeces; and one recognizes by the red, yellow, or white, the kind of soil on which the animals pasture. The particles of vegetables which serve to nourish and to litter sheep, attaches to their wool in such a manner, that it is only with great trouble that one can separate them from it in the operation of washing, beating, (*battage,*) and picking This inconvenience depreciates the wool more than it is possible to believe, and one will not fail, when the moment for it arrives, to recommend to wool growers the greatest precautions to prevent it; in the mean time, we will content ourselves with remarking, that the presence of these foreign bodies causes damage to the beasts, as it causes them to scratch and rub themselves, which results in a striking derangement of the fleece, and a pulling and plucking, (*tiraillemens*) which is very injurious.

The rumplings (*froissément*) which the wool undergoes during its sojourn upon the body of the sheep, sensibly alter its different qualities: in fact we have seen that the most essential of these qualities were connected in a very close manner not only with *the character of the fibre*, but also with *its strength properly called*, and *its different modes of elasticity*—for these last properties are so much the more entire, as they are the less acted upon—as for example, the first quality of a bow is to be endowed with the property of regaining its position, (*redressément*) as prompt in effect and as complete as possible; but after reiterated use this power of self-contraction and regaining its original condition is naturally diminished—one conceives that the result ought to be the same in a fibre of wool, the elastic faculties of which shall have been exhausted by rumplings, (*froissémens*,) or by having been frequently stretched.

We will avoid here, as in the whole course of this section, to speak of the means indicated by experience to prevent the inconveniences that we have judged it necessary to point out at present. It will be time enough to do that when we come to speak of the care necessary to be given to flocks.

End of section 5.—The next treats of the relation between the properties of wool, and its employment in manufactures.

SKETCH OF BEDFORD COUNTY, PENNSYLVANIA.

(Concluded from p. 115.)

93. The food of the agricultural labourer, or *help*, as they are called, is the same as that of their employer. No farmer in Bedford county could get a hireling if he made any distinction, and the entire family, maids, men, children, wife and master, eat at the same table. The quality of the fare depends on the circumstances of the master; usually it is coffee, wheat bread and bacon, fresh meat, poultry, or salt fish, for breakfast. Wheat bread, bacon, fresh meat or poultry, with abundance of vegetables and pies, with a glass of whiskey, for dinner. Tea, the same sort of meat and bread, for supper; sometimes mush and milk in winter.

94. In summer farmers work from sunrise to sunset, allowing an hour or an hour and an half for breakfast, and the same for dinner. In winter they breakfast by candle light, and join their work at the first dawn of day; they are called to dinner, eat and go to it again.

95, 96. Such a domestic as an English butler is unknown to the Bedford farmers, and servants almost as much so. They adopt the admonition given by Martha Trapbois to Glenvarlock: "The wise man is his own best assistant," and are aware that no man is truly independent who depends on the labour or fidelity of others for his comfort.

97. The wages of maids vary from 50 cents to 75 cents a week.

98. A few spirited individuals are adopting the use of lime, clover, gypsum, and a more advantageous and less exhausting course of crops. The culture of clover is rapidly increasing. It has been the custom heretofore to crop the land as long as it will produce any thing, and no means taken to renovate it. This destructive system is to be attributed to the peculiar circumstances of the country. Bedford has been principally settled by emigrants from Europe, the lower part of this state from Maryland and New Jersey. They were generally very poor, and had barely the means of reaching here. There were large tracts of unseated lands in all parts of the country, the property of persons living at a distance, some of them in England. On this land the emigrants *squatted*. They constructed wretched cabins of logs, with clap-board roofs, to shelter their heads from the rigor of the season. The floor sometimes consisted of earth, sometimes of puncheons; a partition was unknown; the single room served the purpose of a kitchen, eating room, work shop, and bed chamber, for the family. Perhaps an equally wretched hovel contained their horse and a cow or a hog. The first year a patch was cleared for potatoes and corn. Next year a field for wheat. The labour of clearing land fit for the plough is prodigious, and to open a farm of a hundred acres is the work of years. Many years must necessarily be passed in painful toil before enough is cleared to maintain a family and keep a pair of horses. In the mean time the first cleared was worn out. Add to this the perpetual apprehension the squatter is under of being removed by a non-resident landholder, from the spot of his affections, the spot where he has struggled and toiled from youth to age, suffering all the privations to which a pioneer of the forest is subject—and we will cease to condemn the bad buildings and bad husbandry of our people.

In order that the matter may be rightly understood, it is necessary to take a *coup de œil* of Pennsylvania tenures.

Charles II. granted the state of Pennsylvania to William Penn, by a charter, who held it in free and common soccage by fealty alone in lieu of all other services. The purchasers from Penn held of himself and his heirs, "by such services, customs and rents, as to him or them should seem fit, and not immediately of the crown," the Penns covenanting to extinguish the Indian title. The tenures under Penn have therefore been said to be by a kind of rent service. A complete title consists in a warrant, survey, patent and possession, and then the allodium is in the purchaser.

In the early settlement of our state, bodies of forest land were taken up by companies and individuals on speculation, who never contemplated settlement or improvement, but who purchased with a view of holding them until a rise in the price would pay them a heavy interest on their capital. This speculation business has retarded the population of Pennsylvania more than any other local cause. Some lands in this county, surveyed in 1763, are yet a wilderness.

As the eastern part of the state became more thickly settled, and lands became difficult to acquire, the poorer farmers moved *out back;* that is, to the west, and finding uncultivated lands without a claimant, they *squatted* on it, erected temporary buildings and began to raise grain. These were joined by emigrants from the adjoining states and from Europe, and in process of time became a numerous and formidable body of men. When the proprietors discovered the intruders, they brought suits in ejectment against them. In some instances the squatters took leases and became tenants; in other cases they held out and plead to the declaration; relying on defect of title in the plaintiffs, or on a possession of 21 years. An actual, adverse bona fide, uninterrupted possession of 21 years, without the shadow of written title, will cut out the best office title in Pennsylvania. Actual settlement and improvement have at all times been peculiar favourites of the legislature, of courts and juries, and where non-residents brought suit against actual settlers, if a flaw could be picked in the title the plaintiffs were mulct in costs. However, the title generally was good, and the squatters aware that nothing short of 21 years' possession could protect them, expended nothing in improvement, and scalped the land. This is one cause of the absence of good husbandry in Bedford.

Again, tenants leasing from year to year have no inducement to erect costly and permanent buildings, or sow artificial grasses, because there is no certainty of their enjoying the benefit of their labour. Those two causes produce a wretched state of agriculture, the poverty of farmers, the absence of education and polite manners.

Those obstructions to every thing desirable are diminishing. Titles are becoming better ascertained, suits in ejectment are fewer, and the landlords desirous of selling and giving the preference to the tenants, and making the payments favourable. In justice to the non-residents, it ought to be observed, that with one solitary exception, I have never known a tenant treated with severity, but every indulgence has been extended to them to enable them to pay their rent, or the purchase money if they have contracted for the land. We may fairly hope to see Bedford from this time forward progressing as rapidly in agricultural improvement as she is in population.

99. Very little advance has been made in improvement of stock, because too much dependence is placed in the woods for pasture, and the policy of the general government possesses no stability; white oak leaves and hickory buds never make good cattle. People must sow more clover, and plough less, before they can raise good stock; and they must have more confidence in the government before they will go to the expense of purchasing the improved breeds. The improved breed of hogs from Chester county has been introduced, and Merino sheep, but the extent of the latter is limited. Our cattle are little better than highland stags.

100. The price of unlocated lands, bought of the government of Pennsylvania, is at present $26 67 per 100 acres. It has varied at different periods, having been 50 shillings currency per 100 acres.

In states where the United States possess lands the price is $1 25 per acre. There are no United States lands in Pennsylvania. The United States owned a tract on Lake Erie, including Presque Isle, which was not deemed to have been conveyed to Penn by Charles; and by deed dated March 3, 1792, the United States, for the consideration of $151,640 25, conveyed the Lake Erie tract to Pennsylvania, and thus extinguished the claim of the general government to lands within this Commonwealth forever.

The public lands of this Commonwealth formerly belonged to the Penn family under the charter of Charles; but in 1779 the Assembly by act, made for that purpose, divested them of the lands, and vested them in the commonwealth, and abolished quit-rents, reserving to the Penns, the proprietary tenths or manors then actually surveyed and their private estates. To the lands thus divested the United States never had any claim. Had the Penns continued to possess Pennsylvania, they would at this time have been the richest family in the world.

101. Every landholder lives by the sweat of his brow.

103. There is a bank here, or the ghost of a bank. It has been endeavouring to wind up its concerns for several years.

104. It is hazardous to attempt to establish the comparative fertility of soil in the eastern and western states. The corn on Lake Champlain appeared to me not worth raising. In some parts of New York it is as good as in Pennsylvania. I have heard it said in Lancaster county, by experienced farmers, that one year with another 25 bushels shelled corn was a good yield; and Lancaster is proverbial in Pennsylvania for fertility of soil and excellence of tillage. It is not uncommon on the Ohio, Mississippi. Missouri and their tributary streams, to raise 75 bushels shelled corn to the acre. An aged farmer, on what is called the American bottom, in Illinois, told me, that having raised corn on the same land for 30 consecutive years, he tried a corner of it in wheat, and it grew rank, taller than a man's head, moulded and produced no grain. Maurice Birkback estimated the produce of corn at English prairie at 50 bushels per acre. In Louisiana they raise two crops of corn in a year. The Ma-ta-po-ny bottoms

in Virginia approaches the fertility of western lands. There are, however, large tracts of barrens in the western states, particularly on the *Grande Rivier la Plaitle*. Were I to venture a *guess*, I should say the best lands on the Missouri and Mississippi produce twice as much as the best lands in Pennsylvania, east of the mountains, provided no manure or other artificial means are used to produce a crop, the plough and hoe excepted.

106. I have made some inquiries respecting the proportion of births to marriages. The following is the result of inquiries made of twenty of my neighbours, taken promiscuously as opportunity offered, and without making any selection, excepting only families the heads of which were not above middle age. Many of them have not arrived at the age of forty. In cases where the women are old and past child-bearing, I have affixed the letter O; where there is a probability of their having more children they are marked B. It is impossible in our country to answer the rest of the query.

No. 1,	10	B.	No. 11,	9	B.
2,	8	O.	12,	10	O.
3,	10	O.	13,	3	O.
4,	8	B.	14,	9	B.
5,	6	B.	15,	9	B.
6,	9	B.	16,	7	O.
7,	8	B.	17,	12	O.
8,	15	O.	18,	10	B.
9,	17	O.	19,	15	O.
10,	11	O.	20,	17	O.

Total number of births, - - - 203.

The result is 10 3-20 to a marriage, which is truly astonishing and cannot hold throughout the state. I am much inclined to rely on the estimate of Dr. Franklin, which was 8 to a marriage. It is certain the proportion of births to marriages is greater in thinly settled countries than in cities and more densely populated districts. I should suppose the number of children on the Missouri to be greater than with us. It would appear that the water which is drunk has an influence on the fecundity of women. In Orange county, Virginia, there are a number of barren women. On the Missouri a barren woman is a prodigy. In the year 1816, I was told at Boon's Lick, that there were four families who lived about three miles from the river, on the opposite side, and that each of the women were delivered in the same month of twins. All the families made useof the same spring. The father of one of the women was my informant. It is certain that women who have been barren for many years, have, on their removal to the Missouri, became fruitful. But I haveneither leisure nor inclination to pursue this matterfurther.

Thomas B. McElwee.

(From the Annales de Chimie.)

SUGAR FROM BEET ROOT

Account of the process used by Mr. Achard, for extracting sugar from beet root, as communicated by him in a letter to Mr. Van Mons.

My labours respecting the fabrication of European sugar have prevented my writing to you sooner. They have employed me, and still employ me, so much, that I have very little time to spare for other objects; but, as I know that the subject is interesting to you, I am anxious to take the first opportunity of giving you some account of it.

The species of beet proper for making sugar is the *Beta Vulgaris* of Linnæus, but all the varieties of that species are not equally proper. That of which the inside is white, the skin pale red, and the root long and spindle shaped, is the best. Every kind of beet yields sugar, but that above described should be made choice of, when we wish to fabricate this substance advantageously; in other respects, the quantity of sugar furnished by the root depends entirely on the mode of cultivation.

It follows, from the process on the fabrication of sugar from beet root, which I executed under the inspection of a committee appointed by the king (of Prussia) that the best method is, to boil the root (with the skin, as it is taken out of the ground, and without any other preparation than that of carefully taking away the leaves and the heart) in water, till it is so soft that it may be penetrated by a straw. A short boiling is sufficient to produce this degree of softness, which is very well known to confectioners, and is given to several sorts of fruit, before they are preserved. The beet root, after cooling, is divided, and cut into slices, by means of the machine made use of by husbandmen for dividing potatoes for the use of cattle. This machine is described, and a figure of it given, in Busch's publication, entitled, *Uebersicht der fortschritte in wissenschaften, kunsten, manufacturen, und handwerken, von Ostern* 1796 *bis Ostern* 1797, Erfurt 1798. This method of dividing the root is the best I have hitherto discovered. Two men, with the assistance of the machine, can cut nearly 100 lbs. of roots into very thin slices, in three minutes.

In order to extract the juice from the roots, after being sliced, they are submitted to the action of a press, which ought to act very strongly, that as much juice as possible may be drawn from them. The pulp remaining in the press still contains a considerable portion of sugar, which it is worth while to extract from it. For this purpose, the pulp is to be mixed with a sufficient quantity of water, and, after twelve hours, the liquor is to be pressed out. After this second extraction, there still remains in the pulp a sufficient quantity of sacharine matter to furnish, advantageously by means of fermentation, either brandy or vinegar.

The liquors obtained by expression are to be mixed together, then strained through flannel, and afterwards evaporated, by continual boiling, to about two-thirds. They are then to be passed a second time through a woollen cloth, or through a very close kind of cloth made use of in refineries: and the strained liquor is to be boiled, in a vessel smaller than the first, till it is reduced to one half.

The liquor must afterwards be strained a third time, and boiled, in a still smaller vessel to the consistence of a thin syrup. It is here necessary to observe, that by giving the syrup too thick a consistence, there is a risk of spoiling the whole.

This syrup, after being poured into shallow earthen vessels, which present a large surface to the air, is to be placed in a stove heated to from 80 to 100, or even to 180 degrees, of Fahrenheit, that it may crystalize. During this insensible condensation of the syrup, the crystaline crust which is formed on its surface, is now and then to be broken; this, by assisting the evaporation, very much hastens the crystallization. From the moment it is observed that, instead of the crystalline crust, there forms on the top of the syrup a thick and gummy pellicle, which does not appear granulated, it is a sign that the substance no longer crystallizes, but merely grows dry, and the evaporation should then be stopped. What remains is a mixture, more or less thick, of a chrystalline substance and a fluid but viscid matter.

To separate the crystallized sugar from the glutinous extract, the whole must be put into a bag made of close cloth, and previously wetted; it must then be submitted to the action of a press, gradually increased. The sugar remains in the bag, and the extractive part passes through it. This sugar, after being dried, is a yellow muscovado, composed of regular crystals, and, when pulverized, forms a white powder of a very good taste; it is perfectly sweet, and may be applied to a number of purposes for which refined sugar is used. By refining this muscovado, sugar of any quality that is wished for may be obtained; the operation being repeated, according to the degree of purity desired.

The whole of the waste parts arising from this process, that is to say, the root which has been pressed, the liquor which passes through the bag upon pressing the crystallized sugar, the washings, &c. &c. are all very useful, and a great quantity of very good rum or brandy may be procured from them, which may be used in making the finest *liqueurs*

The muscovado, in the state in which it is obtained from the first operation, costs about one groschen and a half of Prussia (about two-pence halfpenny) per pound, without reckoning all the advantages which may be derived from making use of the waste parts. By taking these into the account, and bringing the manipulations to greater perfection, which I shall endeavour to accomplish this winter, I am persuaded, that our European muscovado will not cost more than half this price, or nine pennings (about five farthings;) or, even in countries in which fuel is much dearer, one groschen (above seven farthings.)

The distillation of spirit from the waste parts is a matter of great importance; as by that means a great saving of grain will take place; and the making of sugar from the beet root, which will deliver Europe from an oppressive monopoly, becomes, on that account, still more interesting.

I am now endeavouring to discover a method by which the juice of the roots may be poured after being sufficiently condensed, into moulds or forms, in order that it may acquire immediately the figure of a sugar-loaf, and that it may, by claying, become perfectly white in one operation. I have already found several methods by which it appears that this end may be obtained by a very short process. This new manipulation will very much facilitate the making of the sugar, and will consequently diminish the price of it.

WOOL.

Large quantities of grade and full blood wool from this country, Berkshire, &c. have been sold to the manufacturers within a few weeks; but we have not been able to obtain so accurate information respecting prices as we could wish. Some has been sold as low as 25 cents, and we have heard of one lot which brought 43 cents.—We believe that the greater part has been sold for from 30 to 35 cents; the average does not probably exceed 32 or 33 cents. The fleeces may have averaged between 90 and 100 cents each. [*Hampshire Gazette.*

THE CROPS IN NORTH CAROLINA.

The crops in these parts, of Indian corn, cotton, rye, wheat, oats, peas, &c. all look very well indeed. Some of the "small grain crops" have been *reaped*, and the reapers are pleased with both *quantity* and *quality*.

We have had so much *wet weather* of late, and in fact ever since April, that the Indian corn, in some places trouble the planters sorely. But with our hot sun and some vigorous days' work with "weeding hoes" and the plough, we shall gain the *upper hand*.

Cotton is really highly promising. I have seen some very pretty clover and lucerne—this last, I am told, by an aged and highly intelligent and respectable gentleman, *he, himself*, cultivated near Tarborough, in this state, (N. C.) at least thirty years ago, for the sake of a stallion he kept. So that you see *lucerne*, at least, is no new thing in North Carolina. But we do not value it the less highly on that account. T. B. H.

GROWING OF HEMP.

We learn that experiments are commenced in the towns of Charlestown and Claremont, for the culture of this article, and a contract is made for the erection, in Sullivan county, of one of Hine's and Bains' patent Hemp machines, during the next year, provided a sufficient quantity of hemp is sown, to warrant the undertaking. [*Mass. paper.*

HORTICULTURE.

SOVEREIGN REMEDY AGAINST MILDEW ON GRAPES.

Linnæan Botanic Garden,
July 6, 1829.

J. S. Skinner, Esq.

Sir,—I now transmit you the remedy against mildew, the effects of which I have witnessed so as fully to convince me of its adequacy. Mr. Samuel R. Johnson, of Massachusetts, is the gentleman who first communicated to me the information.

Take a pint and a half of sulphur and a lump of the best unslacked lime of the size of the fist, put these in a vessel of about seven gallons measurement, let the sulphur be thrown in first, and the lime over it, then pour in a pail of boiling water, stir it well, and let it stand half an hour, then fill the vessel with cold water, and after stirring well again, allow the whole to settle—after it has become settled dip out the clear liquid into a barrel and fill the barrel with cold water, and it is then fit for use. You next proceed with a syringe holding about a pint and a half, and throw the liquid with it on the vines in every direction, so as to completely cover foliage, fruit and wood—this should be particularly done when the fruit is just forming and about one third the size of a pea, and may be continued twice or thrice a week for two or three weeks—the whole process for one or two hundred grapevines need not exceed half an hour.

In order to fully test the above, the process has been pursued in some cases with only half of a vine, and omitted towards the other half; the result was, perfect fruit on one where absolute failure attended the other. Some persons use sulphur in a dry state, which is thrown on with a bellows suitable for the purpose, but the liquid preparation is far superior, and I think will prove that we are at last complete masters of the mildew. Yours, very respectfully,

William Prince.

MR. PARMENTIER'S GARDEN.

We lately visited Mr. Parmentier's Horticultural Garden, situated at the junction of the Jamaica and Flatbush turnpikes, two miles from Brooklyn. We remember this spot five years ago; it was then unenclosed, and as sterile and stony a piece of land as could be found for miles around—it is now a delightful spot, laid out with great beauty and taste, rich with all the flowers and shrubs of the season, both indigenous and exotic. The Garden, which contains twenty-five acres of land, nearly in a triangular shape, enclosed by a massive stone fence, is certainly one of the best planned and executed models that we have ever seen. The richness and variety in shape and color, of the various shrubs and flowers—the beautiful foliage and delicate blossomings of our native plants, render it a most attractive place. Those who are disposed to decorate their grounds with fruit and ornamental trees, will find every variety at Mr. Parmentier's.

[*N. Y. Enquirer.*

Useful Information for Gardeners.

The ravages of the yellow striped bug on cucumbers and melons may be effectually prevented by sifting charcoal dust over the plants. If repeated two or three times the plants will be entirely secure from annoyance. There is in charcoal some property which is so extremely obnoxious to these troublesome insects, that they fly from it the instant it is applied.

There are three parts of business—the preparation, the debate or examination, and the execution. If you look for despatch, let the middle only be the work of many, and the first and last the work of few.

RURAL ECONOMY.

DUTCH METHOD OF CURING HERRINGS.

There are two methods of salting herrings, called white and red. In the former, the herrings, after being gutted and washed, are either put into baskets, and salt sprinkled in them, both inside and out, and well shaken in the baskets, or else are put in a strong pickle, which is preferable, for twelve or fifteen hours, and are well stirred several times, that the salt may penetrate; they are then taken from the pickle, drained, and packed in barrels, which are strewed at bottom pretty thickly with salt; and if there be time, they are neatly laid in strata, always strewing salt sufficient upon each layer: when the fishery is very abundant, this last operation is deferred till landing, and in the mean time they are only thrown into barrels promiscuously. On landing they are repacked and sorted, as before mentioned, and regularly coopered, to prevent leaking of the pickle, which spoils the fish. Properly, they should be packed after being one night in pickle. When this cannot be done, the fish do not keep so well, and are reckoned an inferior sort.—[*Reg. Arts.*

INTERNAL IMPROVEMENT.

LUMBER.

A retrograde movement.—It is a fact worthy of record, that the demand for this article has increased to such an extent at Pottsville, in consequence of the great quantity used in laying the rail roads and constructing numerous buildings, that notwithstanding the almost unparalleled amount of timber that is annually converted into lumber at our saw-mills, it is impossible to obtain a sufficient quantity, well seasoned; to finish some of the dwelling houses commenced, and several individuals have been induced to send to Philadelphia for a supply for that purpose. Who would have thought, a few years ago, that the citizens of Pottsville would have found it necessary to send to Philadelphia for lumber.

A statement of the number of Arks and Rafts that descended the North Branch of the Susquehonna this season.

Doctor Isaac Pickering and *Christian Brobst, Esq.* employed and paid *Hirom Friar*, a disinterested person to count them; and 17th of April was taken as an average day for 6 weeks—although the running continued 8 weeks—and a few days interruption by wind and high water—on some days above 200 floated past the town of Catawissa, and other days not a 100—so we take the above mentioned days as an average for 6 weeks, which was as follows, viz: On the 17th of April, there floated past the town of Catawissa, 167, of which 36 were arks, laden with wheat, whiskey, stone coal, shingles, ash-plank, pine and cherry boards, &c. One hundred and eleven board rafts, 92 of the rafts were laden with shingles, staves, hoop poles, cider, whiskey, pork, potash, and a variety of other articles—and 20 timber rafts.

The probable value of the above floats, as judged by old experienced water-men are as follows, viz:

36 arks 45 tons each, 1620 tons,	$10,500 00
111 rafts 30,000 feet each, at $80 per 1000,	26,640 00
Loading carried on 92 rafts, each $150,	13,800 00
40 timber rafts, at $125,	2,500 00
Amount of one days running,	$83,440 00
Amount of the whole 6 weeks running,	$3,504,480 00

I certify that I counted the arks and rafts, and the above statement is correct as to number, and I believe the valuation to be correct. Hiram Friar.

NEW CANAL BOAT.

Mauch Chunk, June 24, 1829.

We have the satisfaction to inform our friends that Mr. White has returned from his experimental expedition to Trenton and back, with one of the Lehigh Company's canal boats, and that his voyage has been completely successful. The boat was flat bottom—7 feet wide, 84 feet long, and built so as to come to its full bearing when empty. Her draught of water, empty, was four and a half inches. She carried after coming to her bearing, one and one third tons to each inch. The boat was pushed up Trenton and Scudders's falls, by five hands, with setting poles, and drawn up all the falls from the 4 mile ferry to Easton by a horse with great ease. It is believed that a single horse would pull up two such boats at one time, at the rate of 20 or 25 miles per day, if there was a good towing path on the side of the river. We consider this experiment (which we believe is the first that has been made to bring boats up to Easton from tide by horse power,) as a strong proof of the intrinsic value of the channels of the Delaware, and as a consoling evidence of our boundless outlet for all the trade that can ever pass down the Lehigh and Delaware from the coal mines and western and northern parts of this state. We do not wish to be understood as being in the least wavering in our good opinion of the Delaware canal, but that however much we value the channel of the river, we value the canal much more. Boats built on the plan of Mr. White's will pass through the locks and canal of the Delaware, carrying 75 tons, making this canal capable of passing 5,000 tons up and the same down daily. [*Courier.*

LADIES' DEPARTMENT.

THE AMERICAN FOREST GIRL.

(By Mrs. Hemans.)

Wildly and mournfully the Indian drum
On the deep hush of moonlight forest broke;—
"Sing us a death song, for thine hour is come,"—
So the red warriors to their captive spoke.
Still, and amidst those dusky forms alone,
A youth, a fair-hair'd youth of England stood,
Like a king's son; tho' from his cheek had flown
The mantling crimson of the island-blood,
And his press'd lips look'd marble.—Fiercely bright,
And high around him blaz'd the fires of night,
Rocking beneath the cedars to and fro,
As the wind pass'd, and with a fitful glow
Lighting the victim's face:—But who could tell
Of what within his secret heart befell,
Known but to heaven that hour?—Perchance a thought
Of his far home then so intensely wrought,
That its full image, pictured to his eye
On the dark ground of mortal agony,
Rose clear as day!—and he might *see* the band,
Of his young sisters wandering hand in hand,
Where the laburnums droop'd; or haply binding
The jasmine, up the door's low pillars winding;
Or, as day closed upon their gentle mirth,
Gathering with braided hair, around the hearth
Where sat their mother;—and that mother's face
Its grave sweet smile yet wearing in the place
Where so it ever smiled!—Perchance the prayer
Learn'd at her knee came back on his despair;
The blessing from her voice, the very tone
Of her "*Good night*" might breathe from boyhood gone!—
He started and look'd up:—thick cypress boughs
Full of strange sound, waved o'er him, darkly red
In the broad stormy firelight;—savage brows,
With tall plumes crested and wild hues o'erspread,
Girt him like feverish phantoms; and pale stars
Look'd thro' the branches as thro' dungeon bars,
Shedding no hope.—He knew, he felt his doom—

Oh! what a tale to shadow with its gloom
That happy hall in England!—idle fear!
Would the winds tell it?—Who might dream or hear
The secret of the forests?—To the stake
They bound him; and that proud young soldier strove
His father's spirit in his breast to wake,
Trusting to die in silence! He, the love
Of many hearts!—the fondly rear'd,—the fair,
Gladdening all eyes to see!—And fetter'd there
He stood beside his death-pyre, and the brand
Flamed up to light it, in the chieftain's hand.
He thought upon his God.—Hush! hark!—a cry
Breaks on the stern and dread solemnity,—
A step hath pierced the ring!—Who dares intrude
On the dark hunters in their vengeful mood?—
A girl—a young slight girl—a fawn-like child
Of green savannas and the leafy wild,
Springing unmark'd till then, as some lone flower,
Happy because the sunshine is its dower;
Yet one that knew how early tears are shed;—
For *hers* had mourn'd a playmate brother dead.

She had sat gazing on the victim long,
Until the pity of her soul grew strong;
And, by its passion's deepening fervour sway'd,
E'en to the stake she rush'd and gently laid
His bright head on her bosom, and around
His form her slender arms to shield it wound
Like close Liannes; then rais'd her glittering eye
And clear-toned voice that said, "He shall not die!"

"He shall not die!"—the gloomy forest thrill'd
To that sweet sound. A sudden wonder fell
On the fierce throng; and her heart and hand were still'd,
Struck down, as by the whisper of a spell.
They gazed—their dark souls bow'd before the maid,
She of the dancing step in wood and glade!
And, as her cheek flush'd thro' its olive hue,
As her black tresses to the night-wind flew,
Something o'ermaster'd them from that young mien—
Something of heaven, in silence felt and seen;
And seeming, to their child-like faith, a token
That the Great Spirit by her voice had spoken.

They loosed the bonds that held their captive's breath;
From his pale lips they took the cup of death:
They quench'd the brand beneath the cypress tree;
"Away," they cried, "young stranger, thou art *free!*"

SPORTING OLIO.

A Pedigree Wanted.

Mr. Skinner:

Sir,—I am very desirous to obtain the pedigree of a stallion, called *Flag*, a horse of considerable repute, and who stood in Virginia some twenty or thirty years since, (I think, in the neighbourhood of Petersburg) if it can be procured by any of your correspondents, they will particularly oblige me by inserting it in your valuable paper. I have been informed that Flag was an imported horse, but have no certain knowledge of the fact.

I am, sir, yours respectfully, C.

Yesterday morning, a bet for a considerable sum was determined, which had excited some attention in the neighbourhood of Lloyd's Coffee-house, Mr. H., a gentleman of some sporting notoriety, having undertaken to walk, fair heel and toe, from Clarence-gate, Regent's Park, to the Royal Exchange, in forty minutes, a computed distance of nearly three and a half miles; in which he fully succeeded, having accomplished the task in thirty-eight minutes and twenty seconds with ease. Time was backed freely at seven to four. [*Leeds Intelligencer.*

(From the New England Farmer.)

BOTTS IN HORSES.

Mr. Editor,—Among the many good and useful things that are discovered, and by you published, it would be strange if there were not some hardly worth publishing, and some worse than nothing. Among the last, I think, may be numbered many of the receipts for killing botts in horses. Having from my youth been fond of a horse, I have paid much attention to that animal; and have long since been fully convinced that it was folly to wage open war with botts in a horse's stomach, believing that there has nothing yet been discovered that will kill them in the stomach without killing the horse. I should almost as soon think of setting fire to my barn to kill rats and mice. Many things which you have heretofore published, I think good, such as bleeding to prevent inflammation. Yet I think the most sure way is to keep the horse free from nits.

Some years since I had a very valuable mare that was attacked with botts, and to appearance, was very far gone. I set the following trap for them, which more than answered my expectations. I took of bees-wax, mutton tallow, and loaf sugar, each eight ounces, put it into one quart of new milk, and warmed until all was melted. Then put it into a bottle, and gave it just before the wax, &c. began to harden. About two hours after gave physic. The effect was that the botts were discharged in large numbers, each piece of wax, having from one to six or eight of them sticking to it, some by the head, but most by their legs or hooks.

MISCELLANEOUS.

(From the National Intelligencer.)

THE GREAT WEST.

Extract of a letter from a distinguished citizen of Missouri, to his friend in Maryland.

"Long as I have lived in the west, I had little idea of the glorious country which borders the Mississippi, on both sides, in this upper region. No calculation can be made, and hardly an adequate conception formed, of the grandeur and power of its future destiny. It is replete with minerals, lead, iron, and some copper. After rising the river hills, (which are the highest lands,) the country is, I am told, in almost every direction, for hundreds of miles, a gently undulating plain, for the most part prairie, but interspersed with beautiful groves, and many parts delightfully watered with springs and rivulets. All the creeks and lesser rivers, of which there are many, are skirted with timber, and afford every facility for agricultural pursuits. The soil (except in broken places and some sandy bottoms subject to inundation) is of inexhaustible depth—a black vegetable mould, with a silicious mixture sufficient to impart a quick and vivifying character. The great proportion of prairie will of course render the full settlement of the country the work of many generations; but the day will come when the valley of the Mississippi, from the mouth of Missouri to the Falls of St. Anthony, will contain the densest population that ever lived by tilling the soil. Above the cataract (which is some 250 or 300 miles above this) the Mississippi proper, (not St. Peter's) can hardly be said to have a valley. The river tumbles over its common bluff, and above is all one plain, without hills, without even banks to the streams, and yet it is navigable for a great distance, perhaps into the very lakes and swamps from which its first supply of water sluggishly oozes. Congress must have laboured under a mistake when the boundaries of Illinois were established, or she never would have been allowed 700 miles of front on the Mississippi. The northern line is not yet established, but it must strike the river within 45 or 50 miles below this, and will take in the town of Galena, which already contains some 1500 inhabitants. The country is settling rapidly, for (to say nothing of the mere *diggers* of lead, who, like boffaloes, are migratory,) the whole coast of Illinois, up to the mouth of Fever river, is beginning to be spotted with farms. The Indians, poor devils, are prostrate and crushed. We take their land first, and cheat them out of it afterwards. We have already done so on the left bank, and the right bank is too good a country to expect a different fate. The whites have now no fears of them; they are cowed and subdued, and yet exhibit a touch of their condition that would awaken the better feelings of any man, not hardened, as I partly am, by the frequent recurrence of the spectacle. They meet their fate like a trapped wolf, with a sort of sheepish ferocity. An overwhelming fear and the absolute certainty of perdition, have deprived them of that proud spirit of resistance which marked their primitive character, and destroyed even the hope of revenge. But this is a subject too long to be treated of in a letter. It is only a few years since they were powerful and comparatively happy, and in a few years more they will be heard of only in tradition."

(From Silliman's Journal.)

CHLORIDE OF LIME,

Is manufactured on a very large scale, at the Maryland Chemical Works at Baltimore. A large chamber lined with lead is made use of, and about 5000 lbs. of hydrate of lime is placed thinly on moveable shelves, the chlorine gas is then introduced in the chamber and is absorbed by the lime, the top shelves are saturated first, the lime is then stirred and the shelves reversed, the top placed at the bottom and the bottom at the top, and so on through the whole, introducing additional quantities of chlorine as the shelves are transposed, and the gas absorbed or united. The chloride thus made is considered fully equal to the best bleaching salt which can be imported.

It is an article extensively employed in the arts; especially in bleaching; one grain of it will destroy the coloring matter of two grains of the best Spanish indigo.

It is generally employed in solution, which is made in the proportion of four ounces to one pint of water, and as only one half of the lime is dissolved, it will be necessary to filter, in order to obtain the clear solution. Dilute one part of the liquid with forty parts of water, a pint with five gallons, or a wine glass full to three quarts of water, stir the mixture and it is then fit for use. It is the most powerful, disinfecting agent hitherto discovered, and an instantaneous destroyer of every bad smell. It is an infallible destroyer of all effluvia, arising from animal and vegetable decomposition, and effectually prevents their deleterious influence; hence it is particularly recommended to the attention of those, residing in epidemic districts, as there is reason to expect, that the mixture sprinkled about apartments would prevent the access of contagion to a certain extent around. Its value will be appreciated by the faculty in the examinations for inquests, dissections and anatomical preparations. For all these desirable purposes, it is only necessary to sprinkle the diluted liquid in the apartment, or on the object requiring purification.

The effluvia from drains, sewers and other receptacles of the same nature, will be destroyed by pouring into them a quart of the mixture, added to a pailful of water, and repeating the operation until it is completely removed.

Tainted meats, and animal food of every kind, may be rendered sweet, by sprinkling them with the mixture. Water in cisterns may be purified, and all animalculæ destroyed, by putting into it a small quantity of the pure liquid, say about half a pint to one hundred and twenty gallons of water, and consequently it is highly valuable on board ships.

The nuisances arising from disagreeable and unhealthy manufactories, may be equally obviated by the mere sprinkling of the chloride of lime, and the health of the workmen very materially preserved in such deleterious processes as the preparation of oil colors. It destroys the smell of paints so effectually, that a room painted in the day may be slept in at night, without any smell of paint being perceived, if it be sprinkled some hours before with the mixture.

Smelters of lead, glue and size makers, tallow and soap manufacturers, skin dressers, &c. may deprive their premises of all offensive smell, by the same processes. The close and confined air of hospitals, prisons, ships, &c. will be almost instantaneously purified by sprinkling the diluted chloride of lime in small quantities from a watering pot. The stains from fruits, &c. &c. may be removed from table linen, &c. by dipping the article stained in water, applying the chloride of lime until the stain is removed, and then rinsing well in cold water previous to being washed."

LONDON CONSUMPTION.

The fruits and vegetables consumed in the metropolis are principally produced in the environs; and it is calculated that there are upwards of 6000 acres of ground cultivated as gardens, within 12 miles of the metropolis, giving employment to 30,000 persons in winter, and three times that number in summer. Numerous calculations have been made of the annual consumption of food in the metropolis; but this is not easily ascertained, as, although we may know the number of cattle and sheep, yet we have no means of learning the weight. Of the quantity of cattle sold in Smithfield market we have the most accurate returns, and find, that in the year 1822, the numbers were, 149,885 beasts, 24,609 calves, 1,507,096 sheep, and 20,020 pigs. This does not, however, by any means form the total consumed in London, as large quantities of meat in carcasses, particularly pork, are daily brought from the counties round the metropolis. The total value of the cattle sold in Smithfield, is calculated at £8,500,000. It is supposed that a million a year is expended in fruits and vegetables. The consumption of wheat amounts to a million of quarters annually; of this four-fifths are supposed to be made into bread, being a consumption of sixty-four millions of quartern loaves every year in the metropolis alone. Until within the last few years, the price of bread was regulated by assize; and it may afford some idea of the vast amount of money paid for the staff of life, when it is stated that an advance of one farthing on the quartern loaf formed an aggregate increase in expense, for this article alone, of upwards of £13,000 per week. The annual consumption of butter in London amounts to about 11,000, and that of cheese, to 13,000 tons. The money paid annually for milk is supposed to amount to £1,250,000. The quantity of poultry annually consumed in London, is supposed to cost between 70 and £80,000. That of game depends upon the fruitfulness of the season. There is nothing, however, more surprising than the sale of rabbits. One salesman in Leadenhall market, during a considerable portion of the year, is said to sell 14,000 rabbits weekly. The way in which he disposes of them is, by employing between 150 and 300 men and women, who hawk them through the streets.

In general, mankind, since the improvement of cookery, eat about twice as much as nature requires.

REMARKABLE PRECOCITY OF TALENT.

Sigismund Baron Von Praun.—This youth, who is distinguished for his early and very extraordinary proficiency in the arts and sciences, was born at Tyrnau, in Hungary, on the first of June, 1811, where his farther resided, as colonel in the Austrian service. In his second year he was able not only to read with fluency, but to give a connected sketch of the history of the world. On the 11th of November, 1813 (being then 29 months old,) he was admitted into the second class of the gymnasium at that place; and at the examination of the 26th of August, 1814, he received the first prize for German reading and writing the Hungarian language, the catechism and drawing, in preference to 70 scholars who were much older than himself. At the public examination on the 17th of March, 1815, being three years and nine months old, he received the same honours for the Latin and arithmetic. But the most extraordinary was his astonishing proficiency in music. In his third year he had made himself perfectly master of the violin; and at the last mentioned examination he performed on this most difficult instrument a composition by Pleyel, with universal applause; a year after he gave his second concert before Prince Schwartzenburg, and the principal Hungarian nobility; and from this moment the fame of this prodigy spread itself over Europe. In the summer of 1816 he gave several concerts at Vienna, and presented a great part of his receipts to the invalid fund, for which the emperor honoured him with the order of Civil Merit. In 1817, the commencement of his sixth year, he began his professional tour, passed through Italy in a kind of triumph, and received from the Duchess of Parma the order of Constantine, from the Pope the golden spurs and the order of St. John Lateran, was created Palsgrave, and rewarded with a golden medal and a very flattering diploma by the Boyal Academy, before which he had exhibited with much *eclat* his proficiency in the sciences. In his thirteenth year he completed his legal studies and received 18 royal honorary diplomas from Italy, Austria, France, and the Netherlands. He had scarcely attained his 15th year when he had already acquired the reputation of one of the first violin-players, and was the author of several works, among which a beautiful manuscript in seven languages excited great attention. His high reputation increased with his subsequent tours through Italy, Austria, Holland, France, and Germany, of which a longer detail would be superfluous here, as the accounts published in the journals of the countries which he visited cannot be forgotten by the public. He is at present at Nuremberg, and will next visit Berlin.

[*London Literary Gazette.*

THE BALM OF MEKKA.

Szafra and Beder are the only places in the Hedjaz where balsam of Mekka, or Balesan, can be procured in a pure state. The tree from which it is collected grows in the neighbouring mountains, but principally upon Djebel Subh, and is called by the Arabs "Beshem." It is from ten to fifteen feet high, with a smooth trunk, and thin bark. In the middle of summer small incisions are made in the bark, and the juice, which immediately issues, is taken off with the thumb nail, and put into a vessel; it has a strong turpentine smell, and its taste is bitter. The people of Szafra usually adulterate it with sesamum oil and tar. When they try its purity they dip their finger into it, and then set fire to it; if it burn without hurting or leaving a mark on the finger, they judge it to be of good quality; but if it burn the finger as soon as it is set on fire, they consider it to be adulterated. The Bedouins who bring it, usually demand two or three dollars per pound for it, when quite pure; and the Szafra Arabs re-sell it to the hadjys of the great caravan, at between eight and twelve dollars per pound in an adulterated state. It is bought up principally by Persians. The richer classes of the hadjys put a drop of balesan into the first cup of coffee they drink in the morning, from a notion that it acts as a tonic.

[*Burckhardt's Travels.*

RECIPES.

REMEDY FOR THE BITE OF A RATTLESNAKE.

The last number of the "Transactions of the Albany Institute," just published, contains a paper on the *Uvulavia grandiflora*, as a remedy for the bite of a rattlesnake, by James G. Tracy, that is worthy of some special notice. The writer furnishes the concurring opinions of several gentlemen as conclusive proof that this plant is the same with that used by one Hank Johnson, an adopted Indian hunter, who accompanied the commissioners for settling the boundary line between the United States and the British possessions, in 1820. During this service, Hank performed several cures with this plant. It has a general resemblance to Solomon's Seal; leaves alternate, smooth, and perforated by the stem, which is forked near the top; bearing one, rarely two, drooping liliaceous yellow flowers early in May.

[*Boston Traveller.*

TO MAKE CEMENT FOR BROKEN GLASS.

Take an ounce of isinglass, steep it in half a pint of spirits of wine, for twenty four-hours, then let it dissolve over a slow fire, always keeping it covered, or the spirit will evaporate, then take six cloves of garlic, bruise them well in a mortar, put them in a linen cloth, and squeeze the juice into the isinglass; mix all well together, and keep it for use, it being excellent to join glass ornaments, &c.

TOOTH POWDER.

The following is given as the correct mode of preparing the celebrated French tooth-powder, called *Poudre Peruvienne.* White sugar 36 grains, cream of tartar 72, magnesia 72, starch 72, mace 2, cinnamon 6, sulphate of quinine (or quinia) 8, and carmine 5 grains. All these substances are reduced into a fine powder, and mixed together with great care, then add four drops of oil of roses, and as much oil of mint.

THE FARMER.

BALTIMORE, FRIDAY, JULY 10, 1829.

POST OFFICE LAWS AND REGULATIONS.

Dissatisfaction having been expressed in regard to certain Post Office practices, which some have consideted vexatious, if not illegal, we have enquired into such cases as we have seen particularly designated, and have obtained explanations which it is but just to the parties, and may be useful to the public, to make known.

1. In regard to the reimbursement of postage on letters alleged to be overcharged, when such letters are not opened *in the presence of the Postmaster or one of his Clerks*—It is provided in the 13th section of the Post Office law, passed on the 3d March, 1825, that

"THE POSTAGE MARKED ON ANY LETTER OR PACKET, AND CHARGED IN THE POST BILL WHICH MAY ACCOMPANY THE SAME, SHALL BE CONCLUSIVE EVIDENCE IN FAVOUR OF THE POSTMASTER WHO DELIVERS THE SAME, OF THE LAWFUL POSTAGE THEREON, *unless such letter or packet shall be opened in the presence of the Postmaster or his Clerk.*"

We understand that it has always been the custom in Baltimore, New-York, and some other post offices, notwithstanding the existence of the above provision, to refund postage where the Postmaster was by any means convinced that a letter had been overcharged, without requiring such letter to be literally opened in the presence of the Postmaster or one of his clerks. This practice under the law being made known to the Postmaster General, he addressed our Postmaster a letter, dated 2d June, 1829, from which we make the following extracts:

"It is represented that you are in the habit of abating postage on a letter rated double, upon the representation of the person who receives it that it is single, though not opened in the presence of the Postmaster or one of his Clerks. The 13th section of the Post Office law provides, that a letter shall be opened in the presence of the Postmaster or his Clerk, as the evidence of an incorrect charge, before the postage can be abated, and an executive officer can never vary from the requirements ef the law. * * * * * * * If it is not opened in the presence of the Postmaster or one of his Clerks, no correction must be made. * * * * * *

Thus the public will see that the Postmaster is bound to exact the payment of postage as charged on a letter or packet, "*unless such letter or packet shall be opened in the presence of the Postmaster or his Clerk,*" to shew that it has been overcharged. Neither the Postmaster here nor the Postmaster General can have any interest in giving to the law any construction which its words do not import and justify.

When the above instruction was put in force, many supposed it to be an arbitrary regulation originating with the present Postmaster General; and it was accordingly so denounced—but the following letter to a number of merchants in a large city, from his virtuous and indefatigable predecessor, shews that in this too Major Barry, has aimed only at a vigilant enforcement of the Post Office laws, as they have been hitherto understood at the Department—requiring attention to, and saving in, *small* matters, which make up the sinews of the Department: "many a little makes a mickle," as poor Richard says; and a "small leak will sink a great ship."

"General Post Office Department.
December 12, 1828.

"Gentlemen:—The law provides that 'the postage marked on any letter or packet, and charged in the post bill, which may accompany the same, shall be conclusive evidence in favor of the Postmaster who delivers the same, of the lawfulness of the postage thereon; unless such letter or packet shall be opened in presence of the Postmaster or his clerk.' No other instruction has, at any time, been given on this point, than the strict observance of the law; and any deviation from it has never been sanctioned by the department. Though no doubt would exist of the fact of an overcharge, when so represented by gentlemen of such character as the signers of the letter, yet a rule must he general; and a deviation from that which is laid down in the law, would, in some cases, produce great embarrassment, and actual loss. If the statement of one individual is taken, that of all others must be received: and if the discretion of one Postmaster is admitted, that of nearly eight thousand must be included. Under these circumstances, it is hoped, that no exception will be taken, to the continuance of a rule which the law imposes. I am, &c.

John McLean.

There are other particulars of such frequent recurrence and general interest, that we take the opportunity of adding them, for the information of those who have not a copy of the Post Office laws; and here we are permitted to remark, that a list of all the Post Offices in the United States, and the Post Office laws and instructions, are always kept at the Post Office in this city, accessible, and ready for exhibition with pleasure, to all who may desire to examine them.

Newspaper Postage. Sec. 30. Law of 1825.

"*And be it further enacted*, That all newspapers conveyed in the mail, shall be under cover, open at one end, and charged with postage of one cent each, for any distance not more than one hundred miles, and one and a half cents for any greater distance: *Provided*, That the postage of a single newspaper from any one place to another, *in the same state*, shall not exceed one cent."

Many may suppose that the requirement by Postmasters, of payment *in advance* on newspapers is an arbitrary exaction. The fact is not so, for the law further provides—"And the Postmaster General *shall* require those who receive newspapers by post, to pay *always* the amount of *one quarter's* postage *in advance*."

Some people are under the impression that no matter what may be the weight of a letter, if it be written on only *one* sheet of paper, it is liable only to single postage.—This is a mistake.—By an act, passed 2d March, 1827, entitled "*An act amendatory of the act regulating the Post Office Department*," it is provided, section 5, "that *one*, or more pieces of paper, mailed as a letter, and *weighing one ounce* shall be charged with *quadruple postage*, and at the *same rate*, should the weight be greater; and quadruple postage shall be charged on *all* packets containing *four pieces* of paper," however much the letter *may be under* an ounce.

Postage on Magazines and Pamphlets, Law of 1825, section 30.

When the mode of conveyance and the size of the mail will admit of it, such magazines and pamphlets as are published periodically, may be transported in the mail to subscribers at *one and a half cents a sheet* for any distance not exceeding one hundred miles, and *two and a half cents* for any greater distance. And such magazines and pamphlets as are not published periodically, if sent in the mail, shall be charged with a postage of *four cents on each sheet*, for any distance not exceeding one hundred miles, and *six cents* for any GREATER distance.

By well disposed persons, who reciprocate the spirit in which it is done, no offence will be taken at our suggesting further—That in all cases of supposed grievance in the general practice or particular conduct of a Post office, the simple, obvious, and fair course is to state it, (better always *in writing*,) to the *Postmaster*. He can have no conceivable motive for refusing to explain, if the case will admit of it, or to redress and make amends if wrong has been committed. His own interest, to say nothing of common decency and self respect, it may be supposed, will prompt him to give a ready ear to every colourable demand upon his attention; but if he fail to do it, the party may then apply to the Postmaster General, having made assurance doubly sure, that the neglect, folly or arrogance of an unworthy deputy would be punished as it would deserve. Were he to fail to apply the corrective, the press ought and might be appealed to with double effect to denounce the evil. Nothing is easier than for those who have command of the type to utter complaints, and it is often done with more trouble than it would require, to have the cause of them removed or explained by application to the source of it. The effects of frequent complaints in public papers, upon crude, ill founded allegations, though even honestly made, is to destroy their power and influence in well grounded cases. No public officer, however, who understands the nature of his own obligations, the rights of the public, and the legitimate uses of the press, will ever question its right to allude to or directly arraign his *official* conduct. No allusion to, nor reflection upon any particular occurrence is here intended.

Hartford Agricultural Society.

J. S. Skinner, Esq. *Hartford, October* 9, 1828.

Sir,—At the last meeting of the Hartford County Agricultural Society, you were elected an honorary member thereof.

Entertaining a high sense of your talents, and of your experience in Agriculture, the Society would highly appreciate any communications which it may consist with your convenience to transmit.

You will herewith receive a badge of membership in this Society, and in behalf of its officers and members, I have to assure you, that they would be gratified to see you at their annual exhibitions.

Very respectfully, your obd't servant,
Daniel P. Hopkins,
Cor. Sec. H. C. A. S.

—

Baltimore Post Office, July 8, 1829.

Sir,—That my humble labours should have so far attracted the regards of the Hartford Agricultural Society, as to have prompted them to elect me an honorary member of their association, is of itself a flattering reward for past, and a strong stimulus to future exertions in the cause.

Their invitation to attend their exhibitions will be embraced with great pleasure, if an opportunity should offer: in the mean time, the American Farmer is presented for their perusal with sentiments of great respect on the part of the Editor, who remains with esteem, Your obedient servant,

To Daniel P. Hopkins, Esq. J. S. Skinner.
Cor. Sec. H. C. A. S.

J. S. Skinner, Esq. *Savannah, Geo. June* 29, 1829.

Sir,—I herein enclose you Five Dollars, the amount of my subscription to the present volume of your useful paper. The prospects of our rice and cotton crops are not very encouraging to the low country planter; the rains have been so frequent, that the grass has got ahead of many of the crops.

Yours respectfully, A. S.

Baltimore Market.—A further decline has taken place in Flour. Howard street is worth from wagons $5.25 *a* $5.87½, and from stores about $5.50, though the market is extremely flat both for flour and grain; the latter in fact may be said to be without any certain value. Our rates probably come as near the prices as any quotation can be. Live Stock.—Beef on the hoof continues dull, and without much change.

Latest Foreign News.

By the Corinthian, at New York, London dates have been received to the 1st June.

The Dublin Evening Post states that there is very little doubt of the re-election of Mr. O'Connell. Of 3,000 ten-pounds freeholders, nine-tenths had declared for that gentleman.

Letters from the frontiers of Moldavia, of May, confirm the taking of Baldrick, a little fortress between Varna and Kavarna, by the Turks, and do not contradict the capture of Sizeboli by the troops of Hossein Pacha.

Advices from Leghorn state that the great mischief has been done in that port by a violent tempest. Opposing winds seemed to struggle together, the compass varied every instant, and at intervals traces of fire were seen in the horizon. The vessels at anchor, were exposed to great danger.—Several of them had their chain cables broken, and were driven ashore. Despatches have been received dated Corfu, 16th. Prevesa had not surrendered to the Greeks. Missolonghi was still in possession of the Turks, but expected to fall soon A pause had taken place, by mutual consent, in all active operations of the war, on the whole of that line, extending to the neighbourhood of Arta.

Sir James Scarlet has been appointed His Majesty's Attorney General.

It is said that the Duke of Wellington will go to Venice as soon as the Parliament is prorogued.

Mr. Brougham was offered the situation of Solicitor General, but declined it—preferring to be appointed Master of the Rolls, to which he thinks he has a fair claim, on the first vacancy. Mr. Sugden is to be made Solicitor General.

From the London Courier of May 30.

The French Papers of Thursday contain intelligence from Jassy to the 9th, and Constantinople to the 3d instant, which shows, on the one hand, that severe conflicts have taken place on the Banks of the Danube, in which the Turks have fought with unparalleled valour and enthusiasm, and it may fairly be inferred with unexpected success; and on the other, that the efforts of the Russians to blockade the Dardanelles strictly have failed, and that a sufficient number of vessels, of different nations, had arrived to relieve the scarcity felt for a short period in that capital. In Bulgaria, however, the want of corn continued, but chiefly because it had been collected for the use of the army, whose subsistence was secured, however, the inhabitants of the province might suffer from the extremities of famine. It was believed at Constantinople that the Russians had experienced repeated defeats in Asia, and that the whole Pachalik had been wrested from their hands. The report of separate negotiations between the two belligerents is not even mentioned in these advices. Some of the fortified posts occupied by the Russians between Varna and the Danube, and securing their line of communication, are stated to have been carried by the Turks.

Rome, May 9.—Accounts from Corfu, of the 29th April say, that letters from Egina announce that the Russian Squadron has received orders to attempt the passage of the Dardanelles, at a certain fixed time, and that this attempt was to be combined with a movement of the Russian fleet in the Black Sea, to attack Constantinople with a considerable maritime force. [*Diario de Romana, May* 9.

London, May 31.

Accounts from the seat of war in the east, mention the probability of a desperate atttempt being about to be made by the Russians against the heart of the Ottoman Empire. It is said that the Russian generals are determined to transfer the seat of war to the very gates of Constantinople, by means of a descent in Natolia.—It is added that the Porte, was making the greatest efforts to disconcert this plan, and amongst the rest, was straining every nerve to equip a fleet capable of coping with that of the enemy in the Black sea. We are likewise told that the Russian fleet in the Archipelago is to co-operate in the execution of this project, by making its way through the Dardanelles, as well as the Bosphorus, into the Euxine.

Extract of a letter dated, Liverpool, May 28.

This week we have had a very lively demand for cotton, the sales are large, and we may now consider middling qualities of American descriptions 1d, advanced from the lowest, and *low* and *fine* descriptions nearly as much so, but not as saleable at the advance. Upon the whole we are in a healthy condition at present, and as many of the importers will have now a fair opportunity to realize at a little advance, it is probably they will become less pressing upon the market for the future.—Nothing otherwise new, except that Indian corn, free, is selling at 36s. 6d. to 37s. per 480 lbs.

This week's sales of cotton will be at least 17 to 18,000 bags, perhaps more.

London Markets.

Corn Exchange, Friday, May 29.—We are moderately supplied with English wheat this week, and though there is not much business doing, quite as good prices are obtained. Barley, beans and peas fully realize Monday's quotation; and the oat trade is brisk at an advance of full 1s. per quarter. In other articles no variation worth notice. Wheat, Kent, and Essex, 70s. *a* 78s.; Feed 10 *a* 24s.; Flour per sack 60 *a* 65s.

Prices Current in New York, July 4.

Bees-wax, yellow .23 a .—. *Cotton*, New Orleans .9½ a .12; Upland, .8¼, a .10½; Alabama, .9 a 11. *Cotton Bagging*, Hemp yd. .18 a .21; Flax .13 a .17. *Flax*, American, 8 a 9. *Flaxseed*, rough, tierce ——; clean ——; *Flour*, N. York, bbl. 5.62½ a ——; Canal 5.50 a 6.00; Baltimore Howard st. —— a 6.25; Richmond city mills, —; country, 5.62½ a ——; Alexand'a, —— a ——; Fredericksburg —— a 5.50; Petersburg. 5.50 a ——; Rye Flour, 3.50 a 3.75; Indian Meal, per bbl. 2.37½ a 2.50; per hhd. 13.00 a ——. *Grain*, Wheat, Virginia —— a ——; N.Carolina, ——; Rye, North, 64 a —; Corn, Yel. Nor. .50 a .53; Barley, .— a .—; Oats, South and North, .33 a .40; Peas, white, dry 7 bu. —; Beans, 7 bu. 8.00 a 8.50. *Provisions*, Beef, mess 9.75 a 10.12½; prime 7.50 a 8.00; cargo 6.00. Butter, N. York, —— a —; shipping, .8 a .11; Lard, .5 a .6½; Pork, mess 12.50 a 13.00; prime 9.75 a 10.12½, cargo 9.00 a ——; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* .2½ a .3. *Tobacco*, Virginia .3½ a .5½ a .6½; Kentucky, .3¼ a 5½ a .6½. *Wool*, Merino, American fleece, .32 a .36; Pulled, .32 a .35; common, .18 a .25; Pulled, spinning, .18 a .33.

GREEN-HOUSE PLANTS.

Orders for Green-House Plants from the magnificent collection of Messrs D. & C. Landreth, Philadelphia, received by the subscriber.

The plants are cultivated in pots, which therefore, admits of transporting at the present season with perfect safety. All orders will be carefully attended to,—packed in boxes and received by the steam-boat line.

The collection of the Messrs. Landreth's is not surpassed by any in the Union, and comprise the most beautiful, both native and exotic. None are sold by them unless in perfect health, and the prices at which they are offered very reasonable. Catalogues may be had *gratis* on application.

Also, a constant supply of the Messrs. Landreth's GARDEN SEEDS, grown and warranted by them.

The subscriber has likewise on hand his usual assortment of AGRICULTURAL IMPLEMENTS, such as Davis' Improved Patent Ploughs; Clery's Patent Improved Scotch Ploughs; Improved Bar Share Ploughs; Substratum do. and Shovel do.; Cultivators; Wheat Fans; Hay Rakes; Straw Cutters; Swingle Trees; Oil Stones; Patent Scythe Rifles, Cast Steel Axes, &c. &c. All the castings for the Davis' and other Ploughs sold by him, constantly on hand to supply the place of those worn out—but he does not furnish castings for making new ploughs. JONATHAN S. EASTMAN,
No. 36 West Pratt street, Baltimore.

N. B. Wanted, immediately, two apprentices at the above business—one fourteen and the other sixteen years of age. J. S. E.

McKIM'S GENUINE CALCINED MAGNESIA.

The proprietors of the Maryland Chemical Works, can with confidence, recommend this article to the public as *pure*, and equal in all respects to any of the imported article, and at about *one half the price*; it is carefully put up in convenient sized bottles, and is offered for sale by all the Druggists in the city, and at their Warehouse No. 69 South street, Baltimore.

FOR SALE,

Very superior GRAIN CRADLES for heavy grain, though not approved by some in light grain, as they are made with four fingers only—Also superior Scythe Rifles.

July 1, 1829. J. S. EASTMAN.

ORCHARD GRASS SEED.

The subscriber has for sale from three to four hundred bushels of Orchard Grass Seed, raised by Mr. Edmund Evans, near this city, and will be warranted very superior.

July 1, 1829. J. S. EASTMAN.

ALMANAC.

1829. July.	Sun. Rises.	Sun. Sets.	Length of days.	Moon Sets.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 11	4 42	7 18	14 36	0 37
Sunday,........ 12	4 43	7 17	14 34	1 15
Monday,........ 13	4 43	7 17	14 34	1 59
Tuesday,...... 14	4 44	7 16	14 32	2 49
Wednesday,.. 15	4 44	7 16	14 32	3 46
Thursday,.... 16	4 45	7 15	14 30	rises.
Friday,......... 17	4 46	7 14	14 28	8 0

Full Moon 16th, 9 h. 35 m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Tobacco.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 5.00—red, 5.00 *a* 6.00—fine red, 7.00 *a* 8.00, for wrapping 5.00 *a* 10.00—Ohio, common, 5.00 *a* 8.50—good red 8.00 *a* 12.00—fine yellow 10.00 *a* 20.00—Rappahannock, 3.00 *a* 3.50—Kentucky, fine 4.00 *a* 5.00—wrapping, 4.50 *a* 7.00.

Flour—best white wheat family, $6.50 *a* 7.00*—superfine Howard-st. 5.50 *a* —; city mills, 5.00 *a* — Susquehanna, —. Corn Meal, bbl. 2.50—Grain, best red wheat, new 1.00 *a* 1.05—best white do. new 1.15 *a* 1.20; ord. to good, .60 *a* .80—Corn, white, 40. *a* .42; yel. .40 *a* .42—Rye, .— *a* .50—Oats, .28 *a* .33—Beans, 1.00 *a* 1.25—Peas, .55 *a* .60—Clover seed, 3.25 *a* 3.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—Barley, .45 *a* .50—Flaxseed, 1.20—Cotton, Virg. .9½ *a* .10—Lou. .11 *a* .12—Alab. .9 *a* .10—Mississippi .10 *a* .12—North Carolina, .8 *a* .9—Geo. .9 *a* .12—Whiskey, hhds. 1st pf. .23—in hbls. .24 *a* 25—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 3.75 *a* 4.00; No. 2, 3.50 *a* 3.75—Mackerel, No. 1, 6.50; No. 2, 6.00; No. 3, 4.50—Bacon, hams, Baltimore cured, .10 *a* 11; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .29—Plaster Paris, cargo price per ton, $3.50, ground, 1.25 bbl.—Prime Beef on the hoof, $5.00 *a* $5.50.

*Seven dollars by the single barrel, for Ellicotts' Patapsco white wheat family flour.

Marketing.—Apricotts, $1.25 per peck; Green Apples, 18¾ per peck; Raspberries, 18¾ per quart; Cherries, 3 *a* 10 per qt.; Currants, 6¼ per qt.; Blackberries, 8 *a* 10 per quart; Cucumbers, 10 *a* 12½ per dozen; Beans, 18¾ per peck; Peas, 31¼ per peck; Squabs, 18¾; Butter, lb. .20 *a* 25; Eggs, .16 *a* .18¾; Potatoes, Irish, bush. 1.00 *a* ——; Chickens, doz. 2 *a* 3.00; Beef, prime pieces, lb. .8 *a* .10; Veal, .8; Mutton, .6 *a* .7; Pork, .6; young Pigs, dressed, .87½ *a* 1.00; Sausages, lb. .8; Pork, 5.50 *a* 6.00 cwt.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

COMPLETE TREATISE ON HORSES:

Teaching how to judge them; to rear and manage them; how to improve their breed; to prevent or to cure the maladies and accidents to which they are liable; and to derive from them the most value under all circumstances. Useful to Breeders and Farmers, engaged in the rearing of these interesting animals; to Officers of Cavalry or Inspectors of Recruits; to Keepers of Livery Stables, Sportsmen, or Veterinary Surgeons; to stage Proprietors, Travellers, Farriers, Horse Jockies, Amateurs of the Horse, &c. &c.

By an Old Officer of the French Cavalry.

(*Translated from the French for the American Farmer.*)

ADVERTISEMENT.

Many commendable authors have devoted themselves to interesting researches on the horse. In latter times particularly, the veterinary art has made the most happy progress; and this important science which concurs equally to the security of the state and to the prosperity of the empire, has employed able men, who in this respect have rendered the greatest services.

The *Bourgelats*, the *Vitels*, the *Laforses*, have had for successors illustrious rivals, who have cultivated with as much success as perseverance, this important branch of agricultural riches.

Luminous writings have particularly distinguished Messrs. *Chabert*, *Flondrin* and *Huzard*, who, in a work worthy of the age in which we live, have collected valuable documents, diffused useful information; and have produced, in a word, materials which declare them consummate masters of the art which they profess.

If we had not had any other end than to follow the steps of these illustrious men, we would have renounced the hope of gleaning in a field where they have reaped so rich a harvest; we would have believed our efforts daring, and our researches superfluous; but we have thought that there remained for our zeal a vast career which had not yet been explored, and new lights to be produced in a science which had not been thoroughly considered under all its aspects.

To treat, in fact, of all that concerns the most interesting of animals, it is not sufficient to develop that which regards his health and the art of curing him; it does not suffice to state the principle upon which studs have been established, nor even to present the detailed history of the veterinary science, and of the different progress which is due to establishments, worthy in all respects, of the favour and protection of an enlightened government.

There is a crowd of details of which the development could alone form a complete treatise on this subject. Many of the details appertain to the veterinary art, some belong to the physical sciences—a greater number are in the province of agricultural science. It is only by the mutual help afforded by these different branches, that a complete system on horses can be attained.

For the work in which we have been engaged, experience has been our first guide, and this experience has been enlightened by principles universally recognized by wise agriculturists as well as physicians and veterinarians.

In availing ourselves of the purest and richest sources, in profiting by the progress which the different sciences have made in latter times, we have endeavoured to render familiar learned notions, which, by their abstraction are within the reach of but few individuals, in order that our book may be useful to numbers who by their situation or taste find themselves obliged to have recourse to data which they have not opportunities of obtaining.

This is a species of manual which we offer to the public, and if we cannot flatter ourselves with having attained the object intended, we have, at least, the conviction of having traced a new and sure route which cannot be travelled without some utility.

CHAPTER I.

Preliminary Ideas.

The horse, that interesting animal which man has subjected to his empire, merits, without doubt, the first rank among beasts, as well for his services as his admirable faculties: the historian of nature has not hesitated to place him immediately after man, as much for the perfection of his organization as for his rare and precious qualities. This worthy and faithful companion who participates with us in the greater part of our pains, who shares equally our labour and our glory, has unfortunately much degenerated since the rein has subjected him to our will and our caprice. It cannot be denied, that the horses of this day are far from approaching the vigour and durability of those of old, without speaking of the wild horse, more vigorous still.

If we see now the first of animals which surround us so degraded that at seven or eight years old he is often found ruined, and consequently incapable of rendering us the services which his vigorous constitution seemed to promise, it is, without doubt, that we impose on him excessive fatigue, and at the same time neglect to give him the care which his constitution and well-being require—cruel and inevitable effect of the state of servitude to which we have reduced this noble animal!—bitter fruits of our cruel ingratitude!

No one is ignorant of the great number of horses generally sacrificed in military campaigns, either for want of care or the odious calculations of those who, charged with supporting them, speculate on their privations, and consequently on their destruction. There is no doubt that the fire of the enemy is much less destructive in this respect, than the fatigues and privations of all kinds, which this brave and faithful companion of man is unnecessarily made to support.

It is not less certain that the ignorance, and the blind routine of the inhabitants of the country contribute much, either to make him degenerate, or to deprive him of those forms as beautiful as imposing which appear to be his birth-right

Let us try to bring the light of experience and principle in the midst of this class of errors and prejudices, which are to us a source of loss and privation. Let us endeavour to trace rules equally sure and useful, and to save, by the advice of accurate practice these interesting victims so worthy of our care and of our attention.

CHAPTER II.

General Principles.

To preserve in health the animals under our dominion, to ameliorate their races by giving them more vigour and a more beautiful conformation, is the object of the science called *hygina*.

The means which are employed to prevent the causes which may injure the health constitute the science which is called *prophylactice*.

These two important parts are found, as will be seen, so intimately connected that they can be in no manner separated.

We will employ ourselves then in different objects which it is interesting to know, as well to preserve the horse in health as to prevent the maladies to which he may be exposed.

Hygina is divided into six parts—the first division comprehends the things which surround us, as the air; the second, those which are introduced into the body, and of which a part is assimilated with him, as nourishment—the third comprehends those which are applied to the surface of the body, as grooming, shoeing, &c.—the fourth, those that may remain in the animal economy without becoming hurtful, and which are expelled by the beneficence of nature, as cutaneous transpiration, the urine, &c.—the fifth, those that have a general movement, as labour, sleeping and waking—in fine, the sixth and last comprehends the passions or affections of the mind, that is to say, the action of the moral on the physical and of the physical on the moral.

Let it not be imagined that this last division is superfluous, by alleging that animals are not susceptible of moral affections—numerous examples prove the contrary; let us be permitted to cite one only:—

A horse was attacked with an ulcer which resisted all treatment; he was alone in a corner melancholy and sad. By chance a companion arrived. The pleasure which the animal experienced made in him a revolution so sensible that the ulcer changed its nature and became less inveterate. The sore was now ready to heal when the companion of the sick horse was taken away. The effect which resulted on this same ulcer was such, that it opened anew, and to cure it, it was necessary to bring the other horse, which produced the most happy revolution and the perfect cure of the ulcer; an evident proof that among animals the moral operates sometimes on the physical.

CHAPTER III.

Of the Air, its properties and effects.

The air may have a just title to the first rank among the causes which have a marked influence on animal economy. The atmospheric air is introduced into the organization of the body, as well by the pulmonary organs as by the pores of the skin.

The atmosphere may be considered as a vast recipient, which by reason of the different emanations with which it is charged, brings with it deleterious miasmas, which cause those epizootic disorders, the source of so many ravages. Marshy places are found to have the most pernicious influence.

The heaviness of the air has the greatest influence on nature—and it is not indifferent to know what is the site, the elevation, the aspect, &c., which agree best with the animal organization. It is remarked that at the height of 1500 fathoms the vegetation is much smaller—there are no large trees, and at 2,300 fathoms above the level of the sea, nature stamped with sterility, is in a manner dead and produces nothing.

That the air should be beneficial to the animals that breathe it, it should be neither too dense nor too rarified—where it is too dense (which is the case in low bottoms,) the animals have commonly slow pulses and are tender and phlegmatic—on the contrary if it is too rarified (which happens on elevated situations,) the strength of the animals is too intense, the pulse is full, and the circulation too much accelerated. In both cases it is essential to know the *dietetic* rules, which in the first, prescribe the administering of cordials. Then the nourishment should be increased and such substances given as will raise the tone of the system.

This soft and relaxing air causes obstructions, periodical fluxions, and all the maladies caused by the degeneration of the humours.

In the latter case, on the contrary, the ration should be diminished, the animal deprived of cordials, and antiphlogistics administered. Every thing should be weakened that could coincide with this exuberance of life, and favour inflammatory "*dinthesis.*"

Many causes contribute to the cooling of the air or to heating it. These two different states have much influence on the animal. The cold, for instance, determines the strength from the circumference to the centre; the digestion is good, the animals feed well and are more disposed to thrive. The cold ought not, however, to continue too long, because it would be hurtful and produce spasm.

Though the horse is originally from a warm climate, it does not appear that cold is absolutely inimical to him. In general it is moist cold weather which causes a great number of maladies, such as the scab, the farcy, (*farcin,*) the glanders and many others—cordials should then be used and all that can operate with the force of the organs. Frequent exercise should not be neglected, as well as rubbing--in fine all that can contribute to augment the heat.

The warm air determines the forces from the centre to the surface, and presses on the cutaneous system.

It produces sweating, loss of the juices, and finally, prostration of the system. In this case the blood should be improved by refreshing drinks; the horse should drink often and particularly of water with a small quantity of acid in it. This drink is the best that can be used.

The Romans in their camps made great use of this drink, and attributed to this regimen the virtue of making their horses vigorous--they added a little honey, and had by this process a mixture of vinegar and honey, which could not but be very salutary.

Care should be taken in summer to keep the horse as much as possible in the shade—and he ought not to be exposed to the sun, particularly after mid-day. Horses have been seen tied to stakes in a summer's day, suddenly attacked at the same time with vertigo, so that it was believed that this malady had been communicated from one to another. This opinion appears to us to be erroneous. It is more natural to think that the same cause had produced on many individuals the same effect at the same moment or at some short intervals.

The remedy to be employed in this case is blood letting, and pumping cold water on the head and particularly on the body. This disease is produced by a severe inflammation of the brain, or by the accumulation in that part of blood too much rarified in consequence of plethora.

In warm weather it should not be neglected to bathe horses; the heat dries the fluids and skin and even makes it crisp. Bathing has the property of relaxing and softening it; it gives to the blood the necessary action to preserve health--hence the instinct of their well-being experienced from the bath, which appears to actuate animals to seek for it themselves. It cannot be doubted that in a bath there is an absorption of water by the skin, since it is proved there is an increase of weight in the individual coming out of the bath. It is also known that the bath produces often the desire of urinating, and consequently contributes to alleviate and lighten.

In summer while travelling one ought to set out very early, to repose a part of the day and continue on after its close. It is proved that the greatest heat of the day in summer is not at mid-day, but from that hour till 3 o'clock; as the greatest cold in winter is commonly in the beginning of the day.

The most salubrious air in summer is that which is breathed in the morning at sun rise—there is then an east wind which contributes much to refresh the air.

There is a difference of opinion as to the question whether in summer a horse just arrived should be unsaddled or whether he should wait till cool. It appears that the latter opinion has prevailed. Notwithstanding, the contrary method will not be injurious, if care is taken after unsaddling him to scrape off the sweat with a knife, rub him well all over, and give him a good feed—for example oats. In this case care should be taken that the stable is not too cool. The English, who understand well the care of horses, use constantly the latter method, and if he be a horse of value they give him a couple of bottles of white Champagne wine.

In the sickness called the Spanish malady (*mal d' Espagne,*) which prevails when horses are exposed too long to the rays of an ardent sun, they employ the same process as for vertigo—to wit, bleeding and pumping of cold water, &c.

In the campaign of Egypt many horses were lost, that from being exposed to a too ardent sun were struck suddenly with lock-jaw. They died in a convulsive state. If in this case acid drinks could have been administered this fatal sickness might have been obviated.

It is very true that often it is easier to prevent the causes which produce diseases, than to cure them with even the use of the best medicaments, when the sickness has taken root. According to the season, the climate, and the temperament, suitable nourishment should be given.

In winter, the forces being concentrated within, more food may be given, particularly cordials than in summer; but the quantity should be diminished in spring to prevent plethora, and generally all the maladies of the blood. To this end an usage has been established which ought to be regarded as pernicious, to wit, bleeding in spring, because nature once accustomed to this evacuation requires at each periodical return of the season the same operation, and if once neglected it endangers the life of the animal.

In summer food easy of digestion should be given, because then the stomach digests badly, and fulness may occasion indigestions often dangerous. *Analeptics* (restorants,) should then be given in preference.

Rubbing should not be neglected; it not only renders the horse pleasing to the eye, but has also the property of facilitating the cutaneous transpiration, opening the pores of the skin, and promoting digestion itself; so that a horse well groomed (*pansé,*) is always in better health than one even better fed. In fine, it may be asserted, that rubbing supplies aliment to a certain degree.

CHAPTER IV.

Chemical Effects of the Air.

It is known, according to the rules of modern chemistry, that the air breathed by animals undergoes a complete decomposition, so that it differs essentially from that which has been immediately inspired. In considering the different alterations which the air experiences we will see what are its effects on animal economy.

While the air is absorbed, as it is by the pulmonary organ and by the pores of the skin, the lungs are as the stomach; this digests the food—that, to use the expression, the air. The stomach, after having received the food, assimilates to the parts of our body those which are congeneal to it, while it expels by secretions, the residue of that digestion which by remaining would become injurious to health. In the same manner the lungs digest, to use the expression, the air which is necessary for them, and throws out the parts of the same air that by remaining would oppress the organization. It follows that as air is found more or less pure or more or less charged with deleterious miasmas, that it becomes conducive to health or prejudicial in this first state.

It follows from these principles, that the air once breathed can no more serve for the respiration of animals, and far from being useful to them, cannot but be prejudicial. It is easy then to conceive the inconveniency which must result where animals are crowded in a stable where the air does not circulate freely. This happens in a stable shut, where there are many horses. The heat soon becomes considerable; the pulse becomes low, sometimes quick, and if one of these horses is taken with a putrid disease (*maladie charbonneuse,*) it is immediately communicated with the greatest rapidity. There is in this circumstance so much analogy between the disposition of humours in the bodies of animals exposed to the same influence, that the same causes ought necessarily to produce the same effects. If in this case the horses are brought out, they are found in so weak a state that it is very difficult for them to bear constant exercise.

If you enter this stable, you feel, yourself, an uneasiness which increases by degrees. A lighted candle shows a whitish light which grows insensibly feebler, and is soon extinguished. It is the carbonic acid which produces this effect. You can ascertain in this manner the existence of different gases—carbonic acid extinguishes light, while hydrogen inflames it; but the presence of the last gas is very rare, because it is found much lighter than the atmospheric air, it gains the superior parts, and is elevated to the higher regions.

We may attribute to the air all the deleterious miasmas which exhale from manure, marshes, privies, and a number of focuses of putrefaction, which spread over the vicinity, corrupt the atmosphere, and are almost always the cause of "*epizootic*" and endemic diseases which ravage occasionally whole countries.

The air of stables can be in a measure disinfected, and we will soon show the means; but it should be seen how important it is not to neglect the rules of bygina—opening the doors and windows to allow a free circulation. If the stable is infected by carbonic acid, nature should be imitated, who after great heat, waters the earth by heavy rains. In the case mentioned, water should be thrown profusely on the walls and floors, in every part—lime water, which has the property of separating the miasmas, can be used with advantage—neither the current of air or ventilators will suffice.

It should be observed, that there are a number of diseases which are considered of the same nature by many veterinaries, such as the mange, the glanders, the farcy, (*farcin,*) and the strangles. It is thus that a sound horse placed in a stable with one which has the glanders, sometimes takes the farcy; and another placed with one which has the strangles takes the glanders.

When a stable has been infected by any of these diseases, it is not sufficient, to purify it, to give a layer of lime to the racks, the manger, and the walls, as is often done; by these means the disease is only masked for a time, for this lime in falling exposes the animals to the dangers from which we would preserve them. Boiling water should be used, which extracts all the virus with which the wood can be impregnated. Cold water, which is often employed, cannot produce any effect. It is indispensably necessary to subject every thing of iron to the action of fire. Fire is a great means of neutralizing the most violent poisons.

While epidemic diseases reign we should commence to disinfect the air of the stables. This is the best remedy that can be used. Vinegar, infusions of aromatic plants, even fire itself will be a weak palliative.

This can be done in two ways: the first by the expansion of muriatic acid; the second by that of sulphuric acid. Take for this purpose one pound of muriate of soda, to which put water mixed with triturated oxyd of manganese, four ounces placed in a vessel on burning charcoal until decrepitation. Throw in then half a pound of sulphuric acid, with the precaution of retiring as soon as possible from the vessel to prevent suffocation.

There arises during the operation a white vapour which is produced by the expansion of the oxymuriatic acid, and the residue gives sulphate of soda. Care ought to be taken to keep the stable shut during 24 hours at least.

The second operation is more simple and economical. Put a plate on a chafing dish over burning charcoal—throw in four ounces of nitrate of potash with a sufficient quantity of water, afterwards two ounces of sulphuric acid. The evaporation causes a white smoke which has none of the inconveniences of the preceding. You can remain without danger in the stable or place to be disinfected. The quantity which we have mentioned will suffice for a stable which will contain 25 horses.

End of Chapter iv.—(To be Continued.)

ADVANTAGES OF AN AGRICULTURAL LIFE.

(Continued from page 122.)

The next great advantage enjoyed by the Agriculturist is happiness. By this term I do not mean, that chimerical vision, which is eternally haunting the imagination of deluded man, which he constantly pursues but which as constantly eludes his grasp, that indefinable something incomprehensible to reason, but fascinating and alluring to the fancy. The efforts of man to obtain unalloyed felicity, are like the exertions of the first inhabitants of Arcadia, who chased the sun, and when they reached the hill, on which he seemed to rest, found themselves at the same distance from him, as when they began the chase. By happiness, I mean that freedom from bodily pain, and mental suffering, which is the source of all enjoyment upon earth, and which the great father of the universe, puts it in the power of every human being to obtain in a greater or less degree—and they are happy or unhappy according to the absence or presence of these afflictions. Health consequently is a prerequisite to happiness, and hence was first considered.

Happiness is of a retired nature, hostile to pomp and noise: it is most apt to be secured by enjoying one's own resources, or by mingling with them, the friendship and conversation of a few select companions, to the total exclusion of *intimacy* with the rest of the world; it seeks shade and solitude, and delights to dwell in groves and fountains, fields and meadows. That man I hold to be happy, who feels every thing that he wants within himself, who is independent of the world, who is neither elated by its applause, nor affected by its frown, who is alike indifferent to the brilliant attractions of worldly distinction, and the specious but delusive charms of worldly pleasures. He who is content to confine his ambition to the improvement of his intellectual faculties; his love of gain, to rendering valuable, by judicious cultivation, his patrimonial fields. He whose endeavour it is to derive all his enjoyments from mental, and not sensual gratifications. That man in fine who covets neither the riches of Crœsus, the honours of Cæsar, nor the pleasures of Heliogabalus.

The country unquestionably presents all the essential requisites; it combines in an eminent degree all the sources which contribute to happiness—it is retired, remote from idle show and senseless confusion—separated from the world, man is irresistibly forced to look to himself for happiness—or to content himself with the intercourse of a limited number of companions—silent and umbrageous spots invite your attention in whatever direction you move; pure fountains, lovely fields, and verdant meadows meet the eye at every glance.

The pure water, salubrious air, and wholesome exercise which every man ought to take in the country, protect him from bodily pain—while its tranquillity—the limited social intercourse it affords—and the constant engagement in the farmer's own concerns, furnish the very best shield against mental anxiety.

The fewer people a man transacts business with, owing, alas! to the depravity of human nature, the fewer causes of mental uneasiness arise—in proportion as he refrains from busying himself with other people's business, will causes to ruffle his temper, mortify his pride, or hurt his feelings diminish.

"Life," says Seneca, "is a voyage, in the progress of which, we are perpetually changing the scenes; we first leave childhood behind us, and then youth, then the better and more pleasing part of old age." In the two first scenes, childhood and youth, he is almost invariably happy—in the first because he is free from all care, in the last, because he has attained that ardent and confident period, when he can discover no limits to his wishes; no curb to his ambition, constantly indulging day dreams of the future, and grasping at the immortality of fame, supported by the ever exciting and ever inspiring fervency of youthful hope. I propose to consider man in the third scene, when he usually fixes his destiny, and in the fourth, when he enjoys it—if he consults his own true and substantial happiness, he will adopt as his motto, that celebrated maxim of Cleobulus the Lindian, which has long been considered, a universal principle, extending through the whole compass of life and nature "μέτρον ἄριστον" mediocrity is best; to pursue a life neither degraded by the association with the "profanum vulgus," nor tortured by an anxious desire to excel those, most conspicuous in the union, the country is peculiarly adapted—his voyage then will be unruffled by the violent storms, which so often convulse the state, and be undisturbed by such associates as he thinks proper to exclude from his society—leading such a life, man prepares to pass the fourth scene comfortably and contentedly; to ensure which, scarcely any one will deny that tranquillity and ease are indispensably necessary, and it would be idle and absurd in any man to hesitate for a moment, if called upon to acknowledge that the country was best suited to the acquisition, appreciation, and enjoyment of these requisites.

Let us look into the ocean of life—let us recollect the innumerable shoals and sand banks, breakers and whirlpools with which it abounds, let us examine the various barks which are wafting their occupants to eternity—and then let us decide who is most likely to reach dreadful eternity with most facility. The politician of course occupies a station in the vessel of state, elevated or humble, according to his talents, and dangerous in proportion to its consequence, this vessel is compelled to pursue its course, through the boisterous channel of public opinion, the slightest deviation from its course, is attended with dangerous consequences, sometimes a dreadful leak—sometimes a portion of the crew are pitched overboard—sometimes a total wreck, on the rock of "political damnation;" when this happens, and it is by no means unusual, they are forced to bid a long farewell to all their ambitious projects, and politically defunct, quietly await natural dissolution. The man of affluence, commences his voyage, in a gilded bark, but constructed of materials, which almost inevitably attract it, to the whirlpool of "Luxury," where he is compelled to welcome, as companions (for he is detained here, till he consents to admit this goddess and her suite in his vessel,) the gout, dropsy, stone, cholic, and other diseases, the residue of his voyage, we can readily imagine, must produce delicious happiness. The man of pleasure occupies a bark, fair and goodly to the eye, but in reality frail and unsound; he pursues his voyage so blindly and negligently, that it is a miracle if he avoids splitting upon the rock of intemperance; where he continues, daily praying for the approach of that ship, which is almost constantly calling for passengers to eternity; it is commanded by death. The man of trade, when he begins his voyage, if he is at first prosperous, abandons his little shallop, which bore him safely and slowly, and attempts too often to navigate an unwieldly ship, which for want of adequate ability, is stranded upon the sand-bank of ruin. The farmer though he does not embark in a stronger vessel, and is not exempt from the same dangers, which all his fellow beings like himself are exposed to, yet he possesses temperance, which keeps him always on the alert, and enables him to steer clear of the rock of intemperance; contentment, which saves him from the dangers to which the politician, the nabob, and aspiring merchant, are forced to breast, while his philosophy teaches him to despise the blandishments of the vain pleasures of the world. He then, we humbly conceive, is most likely to arrive at the stream of happiness, which flows at an immeasurable distance beyond these sand-banks, rocks, shoals, and whirlpools, tranquilly and smoothly, upon the bosom of which, he will glide gently, to the "pleasing dreadful" gulf of eternity.

Let us imagine an Agriculturist in the situation, in which every one who claims the appellation ought to be. Behold him residing upon an elevated spot, from which he commands a view of his whole possessions, fields covered with luxuriant grain, forests abounding with the noblest trees, meadows furnishing food for lowing herds, bleating sheep, and neighing steeds—streams flowing through and fertilizing his land, feeding his busy mill, and beautifying the landscape—labourers preparing the soil, in various directions to present the same cheering prospect the succeeding year. The proprietor surveys his property on horseback in the morning, gives the necessary instructions to his overseer, and returns to spend the heat of the day (I speak of course of the season, now existing) in his library. When evening arrives he pursues the same course, and returns at night, happy in the consciousness of having discharged his duty, is greeted by his healthy wife and blooming children, they partake of a frugal meal, and retire to refreshing slumbers. He awakes in the morning to renew his pleasing task. Thus passes his life, happy himself, confering happiness on those around him, rearing his children in the principles of virtue, to pursue his exemplary course. Such men, and such men alone, pass through a merry life, to a mirthful old age—and such men as these, when trembling on the brink of eternity, can ever hope to experience that most exhilarating and exalting sensation—that I mean which is enjoyed by an old man who can take a serene retrospect of a well spent life, tarnished by *no repentance.*

(To be continued.) Faltore.

(From the New England Farmer.)

FINE STOCK.

Mr. Fessenden,—Having seen in your "N. E. Farmer," within a short time, several notices of *extraordinary calves,* induces me also to add to the list.

A very fine cow, now *eight years* old, of my own raising, half *Holderness* and half *Alderney,* has produced me, by different bulls, seven calves; they have all been very fine ones, and all are at this time alive; four of them are in my own possession. Her last calf was born 4th of last December, (a bull) and at four days old weighed 110 lbs., being early, and a *winter calf* I had not intended to raise it—but it was so uncommonly promising, I was induced to do it. On the 4th of March at 90 days old, it weighed 339 lbs. After that date one half of the cow's milk was taken from it—he having learned to eat carrots, oat meal, and hay—and on the 16th of April I sold him to an enterprising young farmer, at Rindge, in New Hampshire, for fifty-five dollars. He was then four months and 12 days old, and weighed 455 lbs., giving an increase of 2 lbs. 9¼ ounces per day. On that day he also measured from the root of the horns to the end of the rump 5 ft. 8 in.; girth 4 ft. 4 in.; and height 3 ft. 8 in. His sire was three-fourths Durham Short Horn, and one-fourth Bakewell. This young bull is therefore three-eighths Short Horn, two-eighths Alderney, two-eighths Holderness, and one-eighth Bakewell, and comprises the best blood of English stock. *I think,* when 2 years old, (if, as I have no doubt he will, have as good care taken of him,) he will be the most promising bull in New Hampshire, or Massachusetts—and a very great acquisition to that state—combining, as he does the *beef* and *dairy* qualities.

Much has been said and written on the subject of allowing cows to come in too young. I have raised a great many calves, and have always allowed them to calve at two years, and often earlier *This* cow had her first calf at *nineteen* months—and was but seven years and seven months old when she had her *seventh* calf; and she is the *largest* cow I ever raised. To be sure she has always been well kept, (but not highly fed) as all animals ought to be. I should not wish, however, to have a heifer with her first calf, come in before a good bite of grass.

Yours very truly, John Prince.

Jamaica Plain, June 29th, 1829.

(From the Nashville Banner.)

RISE AND FALL OF SAP IN TIMBER.

There is no subject upon which there is a greater diversity of opinion than the rise and fall of sap in timber. That there is a sap in timber at certain seasons, none will be so hardy as to deny. But how it gets there is not so easily comprehended. That it ever descends through the pores of the wood, or between the bark and the wood, into the roots, and thence to the earth, is a fallacy—for were it to do so, whence would the tree derive its growth?—Would it not be left of the same size it was before the sap flowed? Manifestly it would. I think it must be apparent to any minute observer, that when the sap is in its fullest state, the tree is larger than it was before the sap had flowed, and as the season advances the sap coagulates and forms one of those rings observable when a log of timber is cut or sawed in two, and commonly denominated the growths of the wood.

That the sap ever rises at all I am not certain, but certain I am that it does not rise in all kinds of timber. Poplar, Black-gum, Water-willow, and various other kinds, if they were felled in January, and the trunk and boughs not separated in May, would be found to have as much sap in them as the same kind of trees which had not been cut down, and actually will vegetate and send forth shoots.—Now let me ask how does this rise in a tree which is separated from its roots? Lombardy Poplars, Willows, Currants, and a variety of apples will vegetate and grow from a slip or switch of them stuck in the ground, without any root at all. This being an indisputable fact, we must conclude that they imbibe the sap from the atmosphere, and that vegetation begins at the top of the slip, and descends into the earth, and there those buds which are covered with earth send forth roots, whereas, if they had not been separated from their parent stock, they would have put forth shoots and leaves; and here it may be observed, that, in spring, the buds of trees which are highest and most exposed to the rays of the sun, are seen to vegetate first, whereas, if the sap rose from the ground, the lowest buds would be foremost in vegetation. But the highest buds vegetating first, is a strong proof that the sap, instead of rising, is inhaled from the surrounding atmosphere, and of necessity it must be the case with those trees that vegetate after being severed from their roots.

There has been much speculation in regard to the most proper season for cutting timber; some are of opinion that January and February are the months most proper to cut timber, as they say the sap is then down, and the timber then harder than at any other season of the year; but this notion is founded in error, for the wood is then more porous and brittle than at any other time. To this every man who has been in the habit of splitting rails at different seasons of the year, will bear testimony, and tell you that timber is much tougher and harder to split, when the sap runs full, than at the dead of winter; but it is objected that if you cut timber when the sap is up, the worm will eat it. In answer to the above objection, I beg leave to state that, whether you cut timber in the winter or spring, both will be eaten by worms, at one and the same time; but the timber eaten in winter, will have a little respite, as the spring must commence to give life to the various flies which deposit their eggs in the timber, and after a short time hatch and produce the worms which do so much injury to our timber.

Now to preserve your timber from the worms, have it cut between the middle of April, and last of May, and instantly have the bark all peeled off, that the sap on the outside of the timber may speedily dry, and then the flies will have no place to lay the egg—for the eggs will not come to life, without the nourishment of the sap of timber.

Of all the timber we have, ash and hickory is the most subject to be eaten by worms. But if hickory be cut in May, and the bark stripped off, it will not be eaten by the worms, and will last much longer if exposed to the weather. Hickory poles cut in winter, will be eaten in summer, but if cut in the spring and the bark taken off, they will last 8 or 10 years in a fence, and will not be eaten by the worm until they begin to decay. The same rule holds good with ash timber: whether it is cut in winter or summer, and the bark instantly taken off, it will not be eaten by the worms.

Hence, I lay it down as a general rule, that all kinds of timber, that have an astringent sap, should be cut when the sap flows fullest, which is in the month of May, in our climate, with a small variation in the season, which, however, can be easily ascertained by the putting forth of the leaves of the several kinds of trees, as some vegetate earlier than others, and that all such trees as keep green all winter, and are termed ever-greens, should be cut in December and January.

Why some timber should rot so soon, and others endure when exposed to the weather, is a problem not easily solved; it appears not to depend on the porousness or density of the wood, for sugar-tree and black-gum, though very hard and dense, decay very soon, as well as beech, and many other kinds of timber too tedious to mention in a communication of this kind. Black locust, mulberry, chestnut, &c. are the most open and porous kinds we have, and no timber is more durable when exposed to the weather; nor does it depend on the hardness or softness of the wood, for cypress, cedar and yellow poplar are very soft, and indeed, the softest we have, and are the most durable and impervious to the weather. Whence then are we to look for the cause of one kind rotting so soon and another lasting so long? I presume it must depend on the oil contained in the wood. Cedar, which is known to be lasting, contains oil in abundance, also locust, chestnut, &c. The pine in all its varieties, contains great quantities of pitch, rosin, &c. and its sap is composed of turpentine spirit, &c. yet there is no wood that lasts longer when exposed than some of the varieties of the pine, nor when it grows to perfection a more useful kind of wood for building and various other uses. Lignum vitæ contains more oil than any other wood and is almost incorruptible. Hence its name when translated, is *wood of life*, and it is never eaten of worms. Mahogany is lasting and durable, shrinks and swells less than any other wood known, therefore is best for furniture, &c. where great strength is not necessary.

But often all kinds of timber are subject to be eaten by worms, and let me ask what it is, that worms, in some shape or other, do not eat?

They not only eat our timber, but they eat our corn, and wheat, and flour, and bacon, and cheese, and indeed, almost every thing that we possess, unless it be our limestone rocks: and the solar microscope has shown, that even a rock is full of reptiles. And those predatory multitudes seem to spare nothing on the globe, for they sometimes eat us while living, and are sure to devour us when dead. O.

June 29, 1829.

As an instance of the traffic between Ireland and Glasgow, in the article of eggs, it is mentioned that one of the Derry steam-vessels in a late trip brought over 15 tons, and on her next voyage upwards of 20 tons of eggs—270,000 ordinary hen eggs.

HORTICULTURE.

THE CURCULIO.

Mr. Skinner: *Cumberland, Va. July* 6, 1829.

Sir,—I have been on the look out during the present season for that formidable enemy to all our stone fruits, (and I may add the apple,) the curculio; and can without hesitation give you the following account of that insect. It is as you have already been informed, an insect much resembling the *pea bug*, but somewhat more diminutive. It is prepared for its mischief by a proboscis about one eighth of an inch in length—with this it makes a semi-circular incision, in the centre of which it deposits its eggs. It commences its work of destruction by the time the young fruit has fairly shed its bloom, and continued its depredations on *my trees* until about the middle of June, by which time but little farther mischief remained within its power, all being destroyed. It has been said by some that its mischief is done during the night—this I have found to be incorrect. I have found it in all hours of the day in *ipso facto*, and watched it while executing all the minutiæ of its operations. I have, however, found it more numerous in the morning. It is not that *timid, retiring* insect as has been represented, but will bear to be approached with perfect composure, and even to be caught, if gentle measures be observed. When the branch on which it is at work is shaken with some little violence, it drops to the earth, but makes no attempt to hide—it immediately contracts itself into a small lump, very much resembling a grain of small black gravel, and thus it eludes (generally,) the closest inspection. It is, as has been related by Mr. Smith of Burlington, N. J., incapable of flying far at a time, but there are but few trees the branches of which it cannot reach by a single flight from the ground, without the aid of any intermediate object. The plum, the peach, the apricot and the nectarine, are all destroyed by the same insect. I have frequently found it this season, and last on the apple also. But alas! I have no remedy—no preventive to apply.

With sentiments of high regard, J. K.

(From the New England Farmer.)

FRUIT TREES.

On rendering Pear Tress and other Fruit Trees fruitful, by operating on the Borders, and by Natural Training. By Mr. Robert Hiver.

Sir,—There are few subjects in horticulture which can be more acceptable to your readers than a system by which good crops of fruit may be obtained from pear trees planted against the east and west walls in gentlemen's gardens; the bad crops these trees have afforded have been proverbial ever since I can remember; and the unnatural schemes which are now resorted to, such as strangulation, ringing, depressing of the branches, and reverse grafting, show that a good system of cultivation is not yet established. This failure has generally been imputed by gardeners to the climate, but as the trees are seldom without fruit at the extremity of the branches, the supposition may be considered erroneous.

It is about twenty years ago since I noticed a Brown Beurre pear tree, trained against the east front of a farmer's cottage. This tree grew upon a limestone rock, where there was very little earth, yet it never failed to yield, yearly, plenty of large and well flavoured fruit. From what I observed of this tree, it appeared evident that the rich and deep border, usually prepared by gardeners was decidedly wrong, as the plants in this case generated too much sap, which always induces disease and barrenness; and, I believe, it will be found in the tree, as in the human constitution, that the state of health consists in the medium between emptiness and repletion. Sir H. Davy has shown the utility of stones in agricultural crops; and I have found them exceedingly beneficial in the formation of fruit tree borders; they prevent the accumulation of water in very wet weather, and also retain sufficient moisture for the purposes of the plant in dry seasons. In 1815, I replanted an old pear wall, 240 feet long: the border for these trees was 12 feet wide, and only 26 inches deep, 8 inches of which were filled with stones, such as could be most readily procured in the neighborhood, and the remaining 18 with the mould which composed the old border.

By this scanty supply of earth for the roots of these plants I have succeeded in obtaining a fruitful and healthy growth, equally remote from debility and luxuriance; and by this simple process I procured fruit all over the tree, as regularly as if it had been mechanically placed, both plentifully up the main stem, and on the lowest horizontal branches. My trees are fan-trained in the best manner; the shoots are kept as uniform and straight as the plications of the instrument from whence the term is derived, and, when the fruit is full grown, exhibit one of the most interesting scenes to be met with within the confines of a garden.

With regard to pruning, the knife should be used as sparingly as possible; I conceive it to be as injurious to this tribe of fruit trees, as the lancet is to animal life; it creates those inconveniences which it is employed to remove; whoever indulges in its free use, most certainly defeats his own purpose. Let any man who is inclined to dissent from this opinion, consider the common thorn confined in a hedge, where it annually undergoes the operation of clipping, and the shrub in its primitive growth, and he will want no arguments to convince him of the impropriety of the practice. But my plans require very little assistance from the knife: they make no breastwood, the energies of the tree being chiefly engaged in forming blossom-buds for the future crop.

It may be justly inferred, from what is here stated, that the bad success which most gardeners have experienced in the cultivation of this valuable fruit, arises principally from the luxuriant state of their trees; the limited space which they occupy on the wall is so disproportionate to their natural growth, that it is almost impossible, with deep and highly manured borders, to reclaim them from a habit of plethorical sterility. The farina, and the whole fructification, partake of this unhealthy condition; and it may be observed, that fruits fecundated with bad pollen scarcely ever resist the atmospheric changes which they afterwards encounter.

From observations made in vegetable physiology, I am persuaded that the tree is principally the produce of the earth, and the fruit of the atmosphere; as great diminution of vigor may take place in the one, without any perceptible alteration in the other. It is, therefore, the first object of the cultivator to proportion the supply of nutriment to the extent of his tree, and this will be best effected by the shallow border above described.

These are the remarks of a man long devoted to the difficulties of his profession, such as have been suggested by nature, and confirmed by experience; and if they are found to be sufficiently instructive for the pages of your useful miscellany, I shall feel happy in being numbered amongst your many correspondents. I am, sir, yours, &c.

Robert Hiver.

In Peru a paste is made by pounding together equal weights of blanched almonds and sugar, it is then packed in chip boxes, and will keep a long time. By dissolving a small quantity in water, an excellent substitute for milk is formed, which is very palatable with tea, and would be found useful in long voyages.

INTERNAL IMPROVEMENT.

GREAT DUTCH CANAL.

Very little is known in Britain of this canal. It is, however, one of the greatest works of the kind in the world; and our readers will perhaps think the following details respecting it not uninteresting. They are derived from engraved plans, with which we have been furnished by Wm. Bald, Esq., an eminent scientific engineer:—

"The object of the canal is to afford a passage for large vessels from Amsterdam to the sea. This city has 40 feet of water in the road in front of its port, but the Pampas or bar in the Zuyder Zee, 7 miles below, has only a depth of 10 feet; and hence all ships of any considerable burden have to unload part of their cargoes with lighters before they enter the port. As the sea in question is full of shallows throughout, all ordinary means of improving the access to the port were necessarily ineffectual; and the resolution was therefore at length adopted, of cutting a canal from the town to the Helder, the northmost point of the province of Holland. The distance between these extreme points is forty-one English miles, but the length of the canal is about 50½. The breadth at the surface of the water is 124½ English feet (120 Rhinland feet); the breadth at bottom 36; the depth 20 feet 9 inches. Like the Dutch canals, generally, its level is that of the high tides of the sea, from which it receives its supply of water. The only locks it requires, of course, are two tide-locks at the extremities; but there are, besides, two sluices with flood-gates in the intermediate space. It has only 18 bridges (draw-bridges) in its whole length. The locks and sluices are double, that is to say, there are two in the breadth of the canal; and we learn from Mr. Bald, that their construction and workmanship are excellent. They are built of brick for economy, but bands of limestone are interposed at intervals, and these project about an inch beyond the brick, to protect it from abrasion by the sides of the vessels. There is a broad towing-path on each side, and the canal is wide enough to admit of one frigate passing another.

"The line which the canal follows may be easily traced on a map of Holland. From the river Ye at Amsterdam, it proceeds north to Purmerend, thence west to Alkmaar lake, thence north by Alkmaar to a point within two miles of the coast, near Petten, and it continues to run nearly parallel to the coast from this point to the Helder, where it joins the sea at the fine harbour of Niewediep, formed within the last thirty years. At the latter place there is a powerful steam engine for supplying the canal with water during neap-tides, and other purposes. The time spent in tracking vessels from the Helder to Amsterdam is 18 hours. The Helder point is the only spot on the shores of Holland that has deep water; and it owes this advantage to the island of Texel opposite, which, by contracting the communication between the German Ocean and the Zuyder Zee to a breadth of a mile, produces a current which scours and deepens the channel. Immediately opposite the Helder there is 100 feet of water at high tides, and at the shallowest part of the bar to the westward there are twenty-seven feet. In the same way, the artificial mound which runs into the lake or river Ye, opposite Amsterdam, by contracting the water-way to about 1,000 feet, keeps a depth of 40 feet in the port (at high water,) while above and below there is only 10 or 12.

"The canal was begun in 1819, and finished in 1825. The cost was estimated at 10,000,000 or 12,000,000 florins, or about 1,000,000*l*. If we compare the magnitude of this canal by the cubic contents of its bed, it is the greatest in the world, unless some of the Chinese canals be exceptions. The volume of water which it contains when filled, or the *prism de remplissage*, is twice as great as that of the New York Canal, or the Canal of Languedoc, and two and a half times as great as that of the Caledonian Canal, if we include only those parts of the latter which have been cut with human labour.

"We have not heard what returns it yields; but we may safely assume that for some years it will not be a profitable concern. Even in Holland, where interest is low, it would require tolls to the amount of 50,000*l*. per annum, to cover interest and expenses. We find from the *Bulletin des Sciences*, that 1,982 ships entered the port of Amsterdam in 1827. Most of the small ones would probably take the old route by the Zuyder Zee; but supposing 1,000 to have gone through the canal, it would be necessary that they should pay 50*l*. each, of toll for passing in and returning, to make up the sum we have mentioned. With the heavy ships, however, the saving of lighterage would probably be a full compensation for this expenditure. To vessels leaving Amsterdam, which formerly were often detained in the Zuyder Zee by adverse winds for weeks, the canal must be extremely useful."

[*Scotsman*.

LADIES' DEPARTMENT.

The following remarks are so true, and the story illustrating the doctrine contended for so pointed, that we cannot refuse to copy them. Every female living in this city will be able to apply the lesson to many of her acquaintance.

Hints to People of Moderate Fortune.

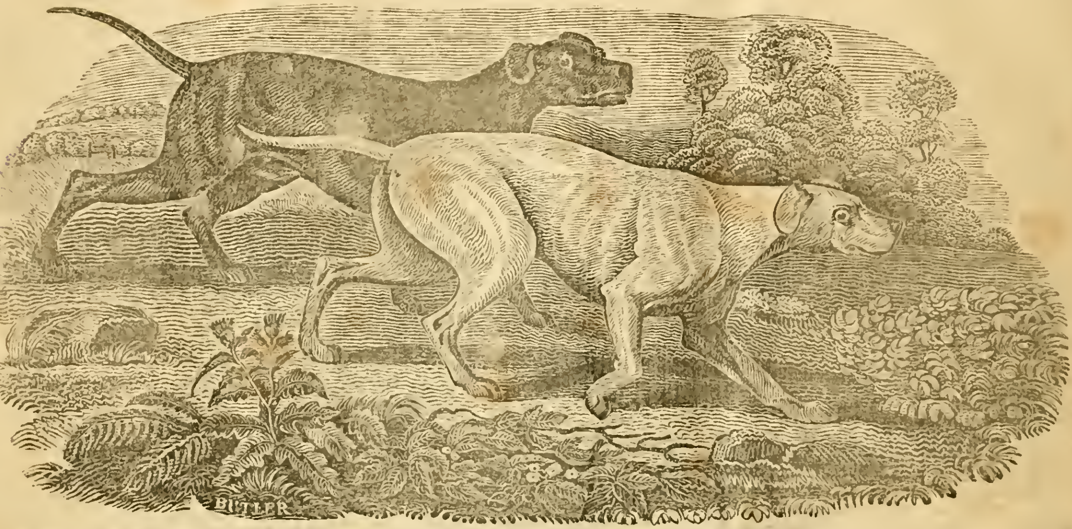
The prevailing passion of the present day is extravagance. I know very well that the old are too prone to preach about modern degeneracy, whether they have cause or not; but laugh as we may at the sage advice of our fathers, it is too plain that our present expensive habits are productive of much domestic unhappiness, and injurious to public prosperity. Our wealthy people copy all the foolish and extravagant caprices of European fashion, without considering that we have not their laws of inheritance among us—and that our frequent changes of policy render property far more precarious here than in the old world. They have an undoubted right to spend their thousands as they please, and if they spend them ridiculously, it is consoling to reflect that they must, in some way or other, benefit the poorer classes. People of moderate fortunes have likewise an unquestioned right to dispose of their hundreds as they please, but I would ask, is it *wise* to risk your happiness in a foolish attempt to keep up with the opulent? Of what *use* is the effort which takes so much of your time, and all of your incomes? Nay, if any unsuspected change in affairs should deprive you of a few yearly hundreds, you will find your expenses have exceeded your income—thus the foundation of an accumulating debt will be laid, and your family will have formed habits but poorly calculated to save you from the threatened ruin. Not one valuable friend will be gained by living beyond your means, and old age will be left to comparative, if not to utter poverty.

There is nothing in which the extravagance of the present day strikes me so forcibly as the manner in which our young people of moderate fortune furnish their houses.

A few weeks since, I called upon a farmer's daughter who had lately married a young physician of moderate talents and destitute of fortune. Her father had given her at her marriage all he ever expected to give her, viz: two thousand dollars. Yet the lower part of her house was furnished with as much splendour as we usually find among the wealthiest. The whole two thousand had been expended upon Brussels carpets, alabaster vases, mahogany chairs and marble tables. I afterwards learned that the more useful household utensils had been forgotten; and that a few weeks after the wedding, she was actually obliged to apply to her husband for money to purchase baskets, iron spoons, clothes lines, &c.—and her husband, made irritable by the want of money, pettishly demanded why she had bought so many things they did not want. Did the Doctor gain any patients, or she a single friend, by offering their visiters water in richly cut glass tumblers, or serving them with costly damask napkins, instead of plain soft towels? No. Their foolish vanity made them less happy, and no more respectable.

Had the young lady been content with Kidderminster carpets and tasteful vases of her own making, she might have put one thousand dollars at interest; and had she obtained six per cent., it would have clothed her as well as the wife of any man who depends merely upon his own industry, ought to be clothed. This would have saved much domestic disquiet; for after all, human nature is human nature, and a wife is never better beloved, because she teazes for money.

SPORTING OLIO.



POINTERS

are dogs of *foreign* extraction, and to our ancestors were unknown: at present they are of such various sorts, and some good of each, that sportsmen form different opinions of their superiority; those most generally approved are of a middle size, well made, light and strong. A *small* pointer, though excellent, can be of little service in thick, high stubble, strong turnips, or heath; and the feet of a large heavy dog will soon be flayed by hunting, in carrying his own weight.

The *Spanish pointer* was the origin of this species of dog, which possesses all the gravity of his nation, both in the solemnity of his appearance, and the slowness of his motions; his nose is very delicate; but the pace he goes at is ill calculated for any country but where game is most abundant. A cross from the Spaniard with the setter, or fox hound, has often succeeded: other intermixtures from the issue of this first cross have also answered the sportsman's wishes, and procured him capital diversion. The most remarkable dog of this class, not only as to the price he sold for, but likewise for the singular mode of finding his game, was Dash, a dog belonging to Colonel Thornton; he had a close cross from the fox hound, and was sold to the late Sir Richard Symons for one hundred and sixty pounds' worth of Champagne and Burgundy, which had been bought at the French Ambassador's sale, a hogshead of Claret, an elegant gun, and a pointer; with a stipulation, that if any accident befel the dog, that might render him unfit for hunting, he was to be returned to the Colonel, at the price of fifty guineas. The extraordinary style of Dash's ranging upon the moors, and his superior manner of finding; and which, when hunting in inclosures for partridges, shewed an instinct almost incredible, by constantly going up to the birds without any previous quartering of the ground, added to his steadiness in backing other dogs, rendered him by far the best pointer that perhaps was ever bred. Dash had the misfortune to break his leg, and was sent to Colonel T., who paid the fifty guineas, according to the agreement, and considered him in that state a great acquisition as a stallion to breed from.

The dog and bitch, represented in the engraving, were the property of Colonel Thornton. Pluto, although a very capital pointer, was celebrated for his pursuit of deer, when encouraged to follow them.

Many outlying deer were taken, from this dog's hunting them, after very long chaces. As a proof of both his and the bitch's steadiness as pointers, they kept their point when Mr. Gilpin took the sketch from which the picture was painted, upwards of *one hour and a quarter*. [*Rural Sports.*

Pedigree of Trumpator.

Mr. Skinner: *Philadelphia, July* 8, 1829.

Sir,—A correspondent, in the 8th No. of the American Farmer, whose letter is dated Norfolk, May 2, 1829, in supplying an omission in the pedigree given of the celebrated running horse Trumpator, has fallen into an error in stating that his grandam, *Trumpetta*, was by *Bedford*. Trumpator is a capital horse, and from his speed and superior bottom, will, no doubt become a valuable stallion. It is then important that there should be no mistake about his pedigree. I own his sire, Sir Solomon, and have been breeding from him for two years past, with some superior thorough bred mares, and take a deep interest in the reputation of his stock. I will, therefore, furnish you, for publication in the Farmer, what I believe to be the true pedigree of Trumpator.

Trumpator was bred by Mr. Bela Badger of Bristol, Pennsylvania, and was gotten by the celebrated turf horse Sir Solomon; his dam was by Mr. Badger's famous running horse Hickory; his grandam Trumpetta (bred by Mr. Powell, in England, in 1797, and imported by Colonel Hoomes of the Bowling Green, Va. when she was but one year old,) was by Trumpator, (whose stock, I understand, is as highly esteemed, at the present day, as that of any other horse in England): his great grandam was bred by Mr. Tattersall, and was gotten by the famous Highflyer; his great great grandam by the English Eclipse; his g. g. g. grandam by Young Cade; he by Cade, who was by the Godolphin Arabian.

Sir Solomon was by the imported horse Tickle Toby, out of the famous running mare Vesta, by Dreadnought; his grandam by the imported Clockfast; great grandam by Americus, &c.

Tickle Toby was by Alfred, (one of the best sons of Matchem, and full brother to Conductor); his dam Cœlia by King Herod; grandam Proserpine, own sister to Eclipse.

Hickory was by the imported Whip; his dam Dido by Dare Devil; grandam by Wildair, (he by Old Fearnought) out of the imported mare Kitty Fisher; his great grandam by the imported Clockfast.

Whip was bred by Mr. Durand, and was gotten by Saltram; his dam by King Herod; grandam by Oroonoko (full brother to Othello by Crab,) out of a Cartouch mare, the dam of Creampot.

Saltram was by Eclipse; his dam Virago by Snap; her dam by Regulus, out of a sister to Black-and-all-Black.

Trumpator, sire of Trumpetta, the dam of American Trumpator, was by Conductor; his dam Brunette, by Squirrel; her dam Dove, by Matchless; grandam by the Ancaster Starling, &c.

Conductor was by Matchem, out of a Snap mare; her dam by the Cullen Arabian; Grisewood's Lady Thigh by Partner; Greyhound, Curwen, Ilay Barb, &c.—There cannot be better blood.

Very respectfully yours, I.

MISCELLANEOUS.

(Items from late English papers.)

The *Royal Adelaide* (120) was launched in excellent style from Plymouth dock-yard, on Monday, the ceremony of naming was performed by the Dutchess of Clarence in the presence of the Lord High Admiral and all the nobility and gentry in the neighbourhood, besides a vast concourse of spectators, to the number of many thousands. The *Royal Adelaide* was laid down on the first of May, 1819, and she has consequently been nine years and two months building. She is truly a beautiful ship. The *Hindoston* (74) is to be laid down on the slip from which the *Royal Adelaide* has been launched. She is to be a teak-built ship, and her timbers have been brought here from Trincomalee.

Extensive experiments have been recently made by Dr. Goeppard, a German botanist, with hydrocyanic (prussic) acid on plants and seeds. On twenty four plants of different kinds, submitted to the action of this poison, both in the fluid and vapour, the same destruction of life ensued as in the animal creation; the seeds so treated were entirely deprived of the power of germination. In the plants from which prussic acid is obtained in the greatest quantity, viz: the laurel, the bird cherry, and the dwarf almond, the same effect was produced as on the others. [*Literary Gazette.*

The rate of interest, in the year 1255, the fortieth year of Henry the Third, was fifty per cent. per annum, which was the highest rate ever known in England. The first Act of Parliament for regulating the interest of money lent in this kingdom, was passed in the year 1545, the 37th of Henry, the Eighth, by which it was fixed at ten per cent.

THE FARMER.

BALTIMORE, FRIDAY, JULY 17, 1829.

AN EXCURSION IN THE COUNTRY—MOUNT HOPE INSTITUTION.

J. S. SKINNER ESQ:

Sir,—You have been so kind as to give a place in your very valuable paper, to some reflections suggested to me, last autumn, by the Cattle-show and Canton races. Those observations, however, written in French, instead of being useful to your readers, may probably have tired them. As they are accustomed to read in the *American Farmer*, the most interesting pieces, they may have seen with displeasure some pages of that paper filled with a foreign language unknown to many of them. Perhaps some apology was due for this; but on the one hand, I was not until now sufficiently acquainted with English, and, on the other, I must confess that since I committed that fault, agriculture with all that relates to it, has but little occupied my thoughts. I ceased to sacrifice to the rural deities. Other goddesses have seduced me into more lively and attractive pleasures, and with an absolute command have made me lose the sight of the fields and of the true happiness which is found only among them. Happily my faith in Flora, Ceres and Pomona, was not quite extinguished in my bosom, and my temporary servitude has but suspended my worship of them.

The fine days of spring have opened my eyes, kindled anew my first inclinations, and awakened in my heart a sensible repentance, with a sincere desire of not deserting again the altars which received so many offerings both of my childhood and my youth. I must say likewise that the perusal of some numbers of the *American Farmer* have had a great share in my conversion.

In order to strengthen my good purpose, I sometimes imitate those *fashionables* who, on elegant horses, make a daily excursion into the country. However, as it is not to make a good figure that I get on horseback, but to refresh my mind and relieve my body, in breathing the pure air of the fields, I do not always join the brilliant cavalcade: on the contrary, I like to ride without pomp, and to seek, beyond the confines of the town, for retired places and charming landscapes.

One day of the last month, I was in the fields on the northern side of Baltimore. As I pursued the high road, my horse suddenly stopped before a post on the top of which was this inscription: *Mount Hope Institution.* For a man who has nothing to do, and is fond of science and belles-lettres, that was a fortunate occurrence: I therefore wished to make the best of it. I left the highway to follow a fine alley planted with ancient oaks, elms, sycamores, and willows. At the end of it is a spacious inclosure in the middle of which arises a large and regular building belonging to the celebrated professor HALL, who established there a Literary and Scientific Institution for boys a few months ago. This gentleman, on perceiving me, came forward and gave me the most welcome reception. He desired me to visit his establishment, and entered into the most interesting particulars concerning it. Philosophy, rhetoric, Greek and Latin, French and Spanish, mathematics, mineralogy, experimental physics, botany, music and some other ornamental arts, are taught there by a perfect method. The teachers, who are under the direction of Mr. Hall, appear to be men of great merit, and have the most polished manners, a circumstance more important than may be thought, in a person who has the management of boys belonging to distinguished families. As for the chief of this Institution, I never saw a gentleman more capable of inspiring confidence. He is one of the most learned men that I have met, and he joins to science a rare modesty and an amiableness, which add a new lustre to it. What may be particularly remarked in him is the principle of order. It is impossible, on seeing him, not to perceive it: (he seems to have upon his face the sign of his vocation.) Then his institution is a model of perfect discipline. That regularity, without which nothing can be brought to a good end, goes there hand in hand with well selected studies; and I observed that the boys, far from being dissatisfied with it, conform with pleasure, and do not seek to avoid it with the wildness and inconsiderateness common to youth: so true is it that it is in the power of those who govern to obtain the most desirable results by a firm will, guided by reason and paternal affection. The *Mount Hope Seminary* has already about thirty pupils; it has accommodations for more than seventy, and I suppose that it will very soon obtain that number. For, besides the excellence of the course of studies, the establishment is a delightful country seat. On the north and east is a charming grove, in which the boys take their daily recreations, exercising themselves in gymnastic plays of every kind, and well directed. On the south and west the house commands a fertile and smiling valley, across which a rivulet rolls its clear and tranquil waters, and in the depth of which the faint murmur of the city expires. At a distance the column erected in honour of Washington is perceived majestically rising to the skies: that view is not unimportant; for the boys, already acquainted with the American history, in looking at the monument, will feel their hearts affected with admiring gratitude and love towards that immortal man, and will be thus encouraged in making the greatest efforts to become learned men and good citizens: and if those to whom history is yet unknown, inquire after this monument, it will be answered: "A country was in servitude; its inhabitants were tributaries; the fruit of their labour and industry was reaped by unjust oppressors. A man resolves in his mind the deliverance of his own country; he rises, he advances against tyrants, he conquers; he deposites his victorious sword on the altar of liberty; he lays the foundation of a republic, creates the best government in the world, and wishes no other honour but that of being a citizen of it. Boys, the country spoken of is your own, its inhabitants are your ancestors; that great man is Washington, and his image has been placed upon that column to attest to future generations his good services and our acknowledgments."

If those observations, Mr. Editor, do not seem to you to be useless, you can insert them in your paper. I know that it is entirely consecrated to agriculture, but I suppose your readers are fathers for the most part, and then they will see with pleasure some particulars concerning an establishment worthy in every respect of the confidence of parents.[*]

L. L. P.

☞ A machine which promises to be of great benefit to cotton planters, has recently been invented by Mr. Follet, of Petersburg, Va. Cotton seed has long been known as possessing a large proportion of oil; but its hull, acting as an absorbent, has heretofore been the great obstacle to the extraction of the oil, and the seed remained valueless and a "cumberer of the ground" around the cotton gins. The machine under notice removes the hull with great facility, and leaves the highly oleaginous kernel fit for the press. The effect, therefore, of the invention will be to create a new source of profit to the cotton planter, which requires no additional capital. We shall have occasion to notice this subject again; in the mean time we must refer those interested to the advertisement of the proprietors, in this number of the Farmer.

BALTIMORE MARKET.—There is very little variation in the prices of flour. We heard yesterday of $5.37½ having been given for Howard street from wagons, though $5.25 appeared to be the general price. From stores, $5.50 *a* $5.62½ is considered the average price. GRAIN.—There is very little new wheat coming to market, and our quotations embrace probably both extremes. A considerable advance will be noticed in corn. LIVE STOCK.—Beef on the hoof has improved about fifty cents in the hundred. Some very fine cattle, 80 or 90, have been disposed of this week, but as they were sold on the foot by the head, we are unable to avail ourselves of their prices.

☞ There has been no intelligence from Europe since our last.

Prices Current in Boston, July 10.

Apples, best, bbl. 1.25 a 1.30. *Beans*, white, bushel .90 a 1.00. *Beef*, mess, bbl. 10.50 a 11.00; cargo No. 1, 9.50 a 10.00; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 6.37 a 6.50; Genesee, 6.37 a 8.50; Rye, best, 3.00 a 3.25. *Grain*, Corn, bu. .56 a 58; Rye, .73 a .75; Barley .67; Oats .38 a .40. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 17.50 a 18.00; Navy, mess, 13.00 a 13.50; Cargo, No. 1.

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[*] This communication induced us to visit the *Mount Hope Institution*, and we were exceedingly satisfied at seeing that establishment. It is founded after the plan of the best ones in Europe. The terms for board and tuition, exclusive of washing and stationary, are two hundred and fifty dollars a year. [*Ed. Am. Far.*

13.00 a 13.50. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ----. *Wool*, Merino, full blood, washed, .27 a .35; do. do. unwashed, .18 a .22; do. three-fourths, washed, .25 a .30, do. half blood, .22 a .25; do. quarter, washed, .20 a .22; Native, washed .18 a .20; Pulled, Lambs', 1st sort, .35 a 37; do. 2d sort, .22 a .25; do. spinning, 1st sort, 27 a .30.

Prices Current in New York, July 11.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .9½ a .12; Upland, .8½ a .10½; Alabama, .9 a 11. *Cotton Bagging*, Hemp yd. .18 a .21; Flax .13 a .17. *Flax*, American, 8 a 9. *Flaxseed*, rough, tierce ——; clean ——; *Flour*, N. York, bbl. 5.50 a ——; Canal 5.37½ a 5.75; Baltimore Howard st. 5.87½ a 6.00; Richmond city mills, —; country, 5.37½ a 5.50; Alexand'a, 5.62½ a —; Fredericksburg —— a 5.50; Petersburg, 5.50 a ——; Rye Flour, 3.37½ a 3.62½; Indian Meal, per bbl. 2.25 a 2.37½; per hhd 13.00 a ——. *Grain*, Wheat, Virginia 1.00 a ——; N. Carolina, 1.00; Rye, North, 60 a —; Corn, Yel. Nor. .50 a .53; Barley, .— a .—; Oats, South and North, .30 a .38; Peas, white, dry 7 bu. —; Beans, 7 bu. 7.50 a 8.00. *Provisions*, Beef, mess 9.62 a 10.12½; prime 7.50 a 8.00; cargo 6.00. Butter, N. York, —— a —; shipping, .8 a .11; Lard, .5 a .6½; Pork, mess 12.50 a 13.00; prime 9.75 a 10.12½, cargo 9.00 a ——; Hams, Va., per lb. .9 a .10½; Northern .9 a .10½. *Rice* .2½ a .3. *Tobacco*, Virginia .3½ a .5½ a .6½; Kentucky, .3¼ a 5½ a .6½. *Wool*, Merino, American fleece, .32 a .36; Pulled, .32 a .35; common, .18 a .25; Pulled, spinning, .18 a .33.

Prices Current in Philadelphia, July 14.

Bees-wax, yellow .22 a .23; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10.50 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .7½ a .8, No. 2, .5 a .6; *Cotton*, New Orleans .10 a .12, Upland 9. a .10, Tennessee 9. a .10, Alabama 9. a 10; *Feathers*, South. .32 a .33, West. .30 a .31; *Flax* .7½ a .8½. *Flour*, super. 5.00 a ——; fine 4.75; Rye 3.25 a ——; Cornmeal, hds. 12.00 a ——, bls. 2.12½ a ——; *Flaxseed*, cask —— a ——; bu. ——; *Grain*, Wheat 1.00 a 1.20; Rye .60 a .65, Corn l. c. white, .44 a .45, l. c. yellow, .46 a .46, u. c. round, .48 a .49; Oats .33 a .40, Barley, Pa. .— a .—; do. East. .55 a .60; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western .8 a .8½; *Hemp*, 2.00 a 210; *Lard*, .5 a .8; *Oil*, linseed, .72 a 73; *Pork*, mess, 13.00 a 13.25, prime 11.50 a 12, cargo 10.00 a 10.50; *Rice*, 2.75 a 3.00; *Tobacco*, Kentucky .3¼ a .6, Vir. .4½ a .7; *Wool*, common washed lb. .26 a .28, half blood 28. a .31, three quarters blood .31 a .32, full blood .34 a .38; unwashed, generally 10 cents less, according to quality.

TO NORTHERN CAPITALISTS DISPOSED TO GO INTO MANUFACTURING.

I own upon the head of tide water, on Nansemond river, about 30 miles to the west of Norfolk, a SAW and GRIST MILL, which I will sell low for cash or upon a credit to suit purchasers, or I will go into copartnership with some person or persons of capital in the manufacturing business. The Mills are situated upon a never failing stream, capable of carrying three thousand spindles, as well as the Grist Mill, the whole year; and in the winter and spring seasons there is sufficient water to carry all the machinery that could be erected. The country around abounds in fine timber, and produces a plenty of cotton; the dam is of the most substantial kind; and the mill-houses and gear are all newly rebuilt, and of the best materials.

JOHN C. COHOON.

Nansemond County, Va. June 3, 1829.

I think 500 spindles might be started to work by the 1st of November next. J. C. C.

TO NORTHERN EMIGRANTS.

The subscriber offers to lease for a term of ten years, from three to six thousand acres of land in Virginia, seven miles from Alexandria, and ten and twelve from Washington and Georgetown. The situation is as healthy as any in the United States; and the land, though reduced by injudicious cultivation, is susceptible of easy and rapid improvement; and is peculiarly adapted to the growth of grass. It is divided into tenements of from one to three hundred acres, (most of them having houses and orchards on them,) and is watered through its whole extent, by a large and abundant stream, presenting several fine sites for mills or factories. The object of the subscriber being the improvement of the land, he will lease to a company of respectable emigrants, from any of the northern states, sufficiently numerous to occupy the whole of it, on the most advantageous terms—charging no rent the first year, 25 cents per acre the second year, and adding 5 cents per annum to the expiration of the lease.

Letters of inquiry, post paid, directed to the subscriber at Ravensworth, near Alexandria, D. C. will be promptly attended to.

July 7, 1829. W. H. FITZHUGH.

COTTON SEED HULLING MACHINE.

We the subscribers, proprietors of the above named Machine for hulling Cotton Seed, invented by Francis Follet, and for which he has obtained a Patent, now offer for sale rights for the use of said Machine, for any section of the United States, or for the use of a single Machine. A Machine of a size suitable to be applied to the power of from two to three Horses, will hull and clean at one, and the same operation, from twenty to twenty-five bushels of seed per hour—which will yield one third its measure or fifty-five per cent. of its weight in Kernel, from Seed of a tolerable good quality. One bushel of Kernel will yield at least two gallons of Oil, which is equal to the yield of Flax seed, and we believe one or two quarts more if well expressed, and will leave about thirty-five pounds of Oil Cake, a valuable and nutritious food for fattening hogs and cattle. A Machine of the size to do the above work will cost about $150, exclusive of the patent right for using it. And those of a smaller or larger size in proportion.—We have a Machine now in full operation which will perform as above stated, open to the view of those who wish to examine it.—The Oil is good for painting, not much if any, inferior to the Linseed Oil. It is also a good gas light Oil, and we believe it may be made a good Oil for lamps, for cleaning wool, for machinery, and for many other purposes. But of this we cannot speak with certainty.

A bale of Cotton of 350 pounds will yield 30 bushels of Seed. The Machine is suited to hull either green or black seed. The Machinery that drives the Cotton Gin will do to drive this Machine, and the presses for pressing Cotton, we believe, may with a little additional fixtures and small expense, be made to answer the purpose of expressing the Oil from the Kernel. From the above information, which may be relied on, those who wish to purchase rights may make their own calculations as to its value, &c. We conceive the discovery to be of great national benefit, especially to the cotton growing states, and that too from an article heretofore of little or no value.

Those disposed to purchase Patent Rights for one or more States, shall have them at a difference in price over smaller purchasers worthy their attention. Our purpose is to sell at a moderate price, particularly to those who are amongst the first that purchase, feeling confident that in proportion to the use of this Machine its value will be enhanced.

We have annexed at foot an extract from the patent laws, and we refer to the laws themselves to know in what an infringement of a patent right consists, that the consequences may be avoided.

Applications for patent rights in person, or by letter, (postage paid,) will be duly attended to.

FRANCIS FOLLETT,
JABEZ SMITH.

Extract from the Patent Laws.

Any person without the consent of the patentee, his or her executors, administrators or assigns, first obtained in writing, shall make, devise, use or sell the thing whereof the exclusive right is secured to the said patentee by such patent, such person so offending shall forfeit and pay to the said patentee, his executors, administrators or assigns, a sum equal to three times the actual damage sustained by such patentee, his executors, administrators or assigns, from, or by reason of such offence, which sum shall and may be recovered by action on the case founded on this and the above mentioned act, in the Circuit Court of the United States having jurisdiction thereof.

Petersburg, Va. July 7, 1829.

ALMANAC.

1829. July.	Sun. Rises.	Sun. Sets.	Length of days.	Moon Rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 18	4 46	7 14	14 28	8 43
Sunday,........ 19	4 47	7 13	14 26	9 22
Monday,....... 20	4 48	7 12	14 24	9 59
Tuesday,...... 21	4 49	7 11	14 22	10 35
Wednesday,.. 22	4 49	7 11	14 22	11 13
Thursday,.... 23	4 50	7 10	14 20	11 53
Friday,......... 24	4 51	7 9	14 18	morn.

Moon—Last Quarter, 23d, 1 h. 7 m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Tobacco.—Maryland, ground leaf, $5.00 a 10.00—seconds, ordinary, 4.00 a 5.00—red, 5.00 a 6.00—fine red, 7.00 a 8.00, for wrapping 5.00 a 10.00—Ohio, common, 5.00 a 8.50—good red 8.00 a 12.00—fine yellow 10.00 a 20.00—Rappahannock, 3.00 a 3.50—Kentucky, fine 4.00 a 5.00—wrapping, 4.50 a 7.00.

Flour—best white wheat family, $6.50 a 7.00*—superfine Howard-st. 5.50 a 5.62½; city mills, 5.00 a — Susquehanna, ——. Corn Meal, bbl. 2.37½—Grain, best red wheat, new 1.00 a —; —best white do. new 1.10 a 1.20; ord. to good, .60 a .80—Corn, white, .45 a .47; yel. .46 a .47—Rye, .— a .50—Oats, .28 a .33—Beans, 1.00 a 1.25—Peas, .55 a .60—Clover seed, 3.25 a 3.50—Timothy, 2 a 2.50—Orchard Grass, 2 a 2.50—Herd's, .75 a 1.00—Lucerne .37½ a .50 lb.—Barley, .45 a .50—Flaxseed, 1.20—Cotton, Virg. .9½ a .10—Lou. .11 a .12—Alab. .9 a .10—Mississippi .10 a .12—North Carolina, .8 a .9—Geo. .9 a .12—Whiskey, hhds. 1st pf. .23—in bbls. .24 a 25—Wool, common, unwashed, lb. .15 a .16—washed, .18 a .20—crossed, .20 a .22—three-quarter, .25 a .30—full do. .30 a .50, accord'g to qual.—Hemp, Russia, ton, $225 a 230; Country, dew-rotted, 136 a 140—water-rotted, 170 a 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, 6.25 a 6.50—Herrings, No. 1, bbl. 3.75 a 4.00; No. 2, 3.50 a 3.75—Mackerel, No. 1, 6.50; No. 2, 6.00; No. 3, 4.50—Bacon, hams, Baltimore cured, .10 a 11; do. Eastern Shore, .12½—hog round, cured, .7 a .8—Feathers, .28 a .29—Plaster Paris, cargo price per ton, $3.50, ground, 1.25 bbl.—Prime Beef on the hoof, $5.50 a $6.00.

*Seven dollars by the single barrel, for Ellicotts' Patapsco white wheat family flour.

Marketing.—Apricotts, $1.25 per peck; Green Apples, 18¾ per peck; Raspberries, 18¾ per quart; Cherries, 3 a 10 per qt.; Currants, 6¼ per qt.; Blackberries, 8 a 10 per quart; Cucumbers, 10 a 12½ per dozen; Beans, 18¾ per peck; Peas, 31¼ per peck; Squabs, 18¾; Butter, lb. .20 a 25; Eggs, .16 a .18¾; Potatoes, Irish, bush. 1.00 a ——; Chickens, doz. 2 a 3.00; Beef, prime pieces, lb. .8 a .10; Veal, .8; Mutton, .6 a .7; Pork, .6; young Pigs, dressed, .87½ a 1.00; Sausages, lb. .8; Pork, 5.50 a 6.00 cwt.

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Complete Treatise on Horses, teaching how to judge of them; to rear and manage them; to prevent or cure their maladies, &c. Advertisement; ch. 1, Preliminary Ideas; ch. 2, General Principles; ch. 3, Of the Air, its Properties and Effects; ch. 4, Chemical Effects of the Air. By an old Officer of the French Cavalry. Translated from the French for the American Farmer—On the Advantages of an Agricultural Life, continued—Fine Stock—Great Dutch Canal—Hints to People of Moderate Fortune—On the Rise and Fall of Sap in Timber—The Curculio—On rendering Pear and other Fruit Trees fruitful by operating on the Borders and Training—Pointers, with an Engraving—Pedigree of Trumpator—Items from late English papers—An Excursion in the Country; Mount Hope Institution near Baltimore—Editorial; Cotton Seed Hulling Machine; Baltimore Market—Prices Current in Boston, New York, Philadelphia and Baltimore—Advertisements—Almanac for the week.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

FOUR DAYS AT CAPE MAY ISLAND.

To the Editor of the American Farmer:

Sir,—Emptying my travelling coat pocket on my return home I found in it the following sketch of a four days visit to Cape May, and of a fishing excursion. By which "one of the party" it was put there this deponent saith not. Game is abundant at the Cape, but those who are fond of shooting will do well to take their dog and gun with them. The place is in nothing so defective, however, as in *side saddles*, there not being one on the island; so that the folks there have, I suppose, to ride double, to which the great objection is, that you cannot tell whether the embrace be *volens* or *nolens;* at all events it is not mutual, and therefore you know cannot be so pleasant. Two or three ladies' saddles and as many ambling ponies would be a great acquisition to the place.

I offered the rigmarole with which I now trouble you to the editors of the daily papers, but they said it waa too long to read with the mercury at 90; besides the account of the fish dinner would make their readers hungry for what they could not get, and thus produce additional "vexation of spirit." I managed to read it until I came to that part about beautiful women "the brightest progeny of heaven" and a "drove of wild *cattle*," and then I concluded I would try to *poke* it into the Farmer.

Persons who reside in populous cities, engaged in pursuits of a sedentary nature, consult true economy of health, and, consequently, of time, by flying from it, in hot weather, for a few weeks, to enjoy the pure air of the mountain, or the more constant and refreshing breeze of the ocean. The mind, turned for a time from its every day channels of contemplation, and care; recovers its wonted energy in the midst of new scenery, and diversified amusements; and the body, which lives with the mind, in sympathy so perfect, that were it not impious we might call them identical, soon regains its wonted tone and elasticity; enabling us to return to our occupations, whatever they may be, with redoubled energy and effect. We come back renovated and buoyant, like a gallant hunter after a six months run at grass.—"He trots the air. The earth sings when he touches it. The basest horn of his hoof is more musical than the pipe of Hermes."

To those who may desire thus to escape for a short time from these doubly reflected heats, and noisome gazes of the town, it would be useful if others who are familiar with the various routes, would give a *plain, circumstantial, minute statement*, of the expenses and modes of conveyance, distances, the houses of accommodation on the road and at the places of sojournment, with the habits of intercourse and amusements provided for the company, &c. In that persuasion I take my pen to write you a few lines in regard to *Cape May Island*, being here on my first visit.

The swift and commodious Steam Boat Commerce, Capt. Reeves, leavs Philadelphia, at present, for Cape May, nobody knows exactly when, calling at New Castle and Delaware city. If you have in view, health and economy, there is no occasion to go to Philadelphia on your way; it is only going from one large city to another yet larger, and less healthy than your own; and the out of the way *call* there, though but for a night, will add a smart item to your list of expenses, even though you be alone: if you have ladies with you, who shall calculate expenses? In the first place they will be sure to persuade you to stop and *rest* one day in the city of brotherly love; and during this day of *rest*, they must see the Philadelphia museum, and Pratt's gardens, the theatre, the water works, and the glass blower, and there you are sure to go yourself for the sake of seeing the glass blower's pretty daughter. Then again they must call at Tiebaud's, only to *look* at the fine jewelry, and above all they must step in at Mrs. Pratt's and the handsome stores in Second street, just to buy some trifle that has been forgotten; taking Carey and Lea's in the way, to get the new novel Ecarté, wherewith to kill *ennui*, and luxuriate the imagination and mend the morals by rambling with the author through the brilliant and seductive *salons* of Paris. *Mem.* Ladies generally fancy every thing to be cheaper and more elegant which they find in strange cities than the same articles in their own.

I recommend you therefore take the evening boat at 5 o'clock, P, M. at sunrise you arrive at New Castle, there you rest and refresh yourself until the Commerce comes along at 10 o'clock—you then step on board of her, eschew Philadelphia, and arrive at Cape May at 6 P. M.

Expenses: To New Castle three dollars and fifty cents.—A good breakfast there at Lewis', fifty cents; dinner and passage money to Cape May, four dollars twenty-five cents. Thus you are put down on the sea shore, with your baggage, including taxes for being looked at by servants and porters, for about $8.50 or at most $9. There you pay ten dollars a week for board; this may appear high, but it should be recollected that the season lasts only about six weeks, and that a large house and furniture must be kept through the year, and many servants, whether the company be small or numerous. The Steam Boat usually anchors just within the mouth of the Delaware, a few miles above the light house on the Cape. The passengers are sent off in one boat, whilst their plunder as it is called in Kentucky is thrown into another, and is taken over about three miles across the land and arrives soon after its owner at Cape *Island*, as the place of bathing is called, though you are certainly not sensible in passing from the continent to the island, when or where it is that you *cross the channel*. The advantage to be gained by a sharp look out, at this point of your journey is to get in advance at the boarding house to secure the most comfortable room; that is, the last that is usually shown to you; the one I should say, which has the freest circulation of air, and is not the nearest either to the stars of heaven, or the fumes of the kitchen.

To a lady of our party, who had been here before, and who has more tact than I have, we are indebted for being most comfortably fixed at Hughes', receiving every attention that the most fastidious could require from the landlord, his wife, the bar keeper, and every domestic about the establishment. My visit has been but a flying one of four days, and each day I have been more and more pleased, refreshed and invigorated; and, what is far more gratifying and apt to my purpose, my *better half*, as you know every man's wife is, in countries where the law allows him but one,—she was so much debilitated when we arrived at Newcastle, that she could with difficulty walk to the steam-boat; already she is incredibly re-animated and strengthened, no longer fearing to expose her delicate frame to the buffetings of the stoutest wave; and when "the soft hour of walking comes" at noon, she can tread, with elastic step, the firm and beautiful sea-shore for miles; and then at night, as is the custom here, when music sounds, she can trip it lightly through the "mazy dance," leaving me, who, you know, am of sober turn, and not given to the lighter amusements of the world, either to talk sentiment aside with some fair lady, or to play in silence *le role d'observateur*.

The good landlord is ready to instruct you in all the modes, and to see that you are supplied with all the various means of amusement. And here I ought to describe some of them:

You breakfast at half past seven; for which you are prepared, even though it may be against your lazy city habits, after the profound sleep which is so happily promoted by the murmur of waves that roll so majestically and break in eternal succession on the shore. After breakfast you amuse yourself in various ways according to your inclination, whether it be to walk, or to ride, to read or pitch quoits, or go shooting, to make love, or to philosophise, or to bowl at ten pins; nine pins being positively against the statute in such cases made and provided by the wise Legislature of New Jersey, that decided Mr. Southard was no citizen of his own state, because he had sojourned for a time in Washington, where there are no citizens at all. Some make up parties, and ride in their Jersey wagons, peculiar for their lightness and strength of structure and materials; one party going to the "cool spring," a pure, copious and delightful fountain that rises in the midst of a salt lake or pond, whilst another rides by a shaded road to the light-house, three miles distant; and after climbing up, by one hundred steps, to the top, and looking out over the country and the ocean, presently comes flying home again on a shore so firm, that horses and vehicle scarcely leave an impression as you pass along.

Some prefer, in the intervals of bathing hours, to take their seat upon the benches, under the awning upon the bank, and musingly contemplate the vast expanse of waters that spread to a sightless distance beyond the sphere of human vision. How various, you reflect, are the fates and feelings, hopes and fears of the thousands who are now wafted on the trackless surface before us to all quarters of the globe—some, benevolent spirits, going miniaters of peace and missionaries of holy truth; whilst others roam with desperate passions and a bloody flag, *hostes humani generis*—seeking whom they may destroy, and thirsting only for plunder.

"But scarce observed, the knowing and the bold
Fall in the general massacre of gold;
Wide wasting pest! that rages unconfin'd,
And crowds with crimes the records of mankind.

Perhaps the ship that passes in our view at the moment spreading her white sails to the favouring breeze of heaven, brings mournful tidings of a father lost in some far distant inhospitable clime, seeking sustenance for a faithful wife and beauteous children; or haply she may restore to some fond mother a long absent darling son—but when scenery and circumstances inspire, who can limit or describe the creations of our fancy spurning as it does "the gross control of wilful might."

I only know and *feel* that there is in the view of the unbounded ocean some awful and sublime influence which produces melancholy but grateful sensations; and that looking from nature up to nature's God, I am struck with a sense of my own *nothingness*, and am ready to exclaim, how insignificant, yet how presumptuous is man? How boundless, yet how microscopic must be the vision of Him, who distinguishes such an *atom* in the mass of his created worlds. How ridiculous, were it not even yet more profane to suppose that to such a being we can give pleasure or inflict pain, and that all these created worlds were made for us alone of all animated nature!!

"Who knoweth the spirit of man that goeth upward, and the spirit of the beast that goeth downward to the earth? All go unto one place; all are of the dust, and all turn to dust again," saith the scriptures.

But a truce say you with musing—proceed and let us know, if we should follow you to Cape May, what we are to do *pour passer le tems.—Eh bien!*

I have already mentioned the resources it affords for recreation, in general terms. Of course the chief enjoyment is a cool invigorating sea breeze in the hottest weather; and the yet more delightful bath, in a clear salt surf, on a firm gradually sloping shore of clean white sand. Then, as I have said, you have the gun, the quoit, the bowl, the ride, or the walk upon the shore or in the fields, the book and social converse through the day; and music and dancing at night. And now you must let me speak of a *fishing party*, which as it was in many respects new, in the annals of Cape Island amusements, and affords more certain chances for fun and good cheer than any other that has been devised, and may be easily repeated, is worthy a particular sketch.

All who have been here within the last thirty years remember, as I take for granted, that important personage, the industrious Mr. Skellenger,—A-a-ron Skellenger, boat-builder, carriage driver and fisherman; owner of 200 acres of land, and nine hearty black-eyed children! Without being exactly of that mould, or character, he may yet some how or other remind you of some of those valorous husbandmen in ancient times, that

"Held the scale of empire, rul'd the storm
Of mighty war; then, with unwearied hand,
Disdaining little delicacies, seiz'd
The plough, and greatly independent liv'd."

We know he disdained *wine* on this day, and that he headed a party of militia that beat off the British boats from Cape May—"our army performed wonders in Flanders," and likewise in the Jarseys.

I had not been here a day before I discovered that where you wanted amusement, in the way of riding, fishing, &c. Aaron was chief cook and *factotum*; and so, with the aid of a great and public spirited manufacturer, who has come here all the way from Steubenville, in Ohio, the American Farmer (on paper) from your city, a sprightly disciple of Hippocrates, a French gentleman a first rate shot, and a brave hearted son of the ocean; *always relying upon Aaron as our great sheet anchor*, we got up yesterday, the most delightful fishing excursion, that any of us, as was unanimously agreed, had ever before enjoyed. At 9, A. M. we started for Cape Island Sound, the Raritan river in miniature, cheered by the company of half a dozen ladies, and what party was ever pleasant where no petticoat was to be seen? In a few minutes we embarked in three boats to descend the sound about three miles to the ocean, with hooks and lines, seine and baskets, &c. &c. The manner of proceeding is to fold up the seine smoothly on the bow of the boat, and coming to where it is supposed a good haul can be made, one man is put on shore who holds the end of the line, the boat is then rapidly rowed off, the seine falling off as the boat proceeds, describing the circle intended to be fished; she approaches the shore at another point, where another man jumps out and takes the line attached to the other end of the seine, and both pulling at the same time the fish are cast on shore; mean while, the boat in which the ladies are seated under umbrellas, is kept close upon the exterior of the seine, following it up in such a manner as to have a perfect view of the whole operation, and to see as our's did, bushels of the finny tribe, of all varieties of shape and hue, fluttering and sparkling on the shore, "and with their silver coats reflect the dazzling beams." In this way did friend *Aaron* and his men, with perfect skill and knowledge of the field of action, conduct us to the mouth of the sound on the sea shore, making four successful hauls in the way. In the first we cast up five dozen, in the second four, in the third seven, and in the fourth nine and a half dozen.

Arriving on the beach, then about three miles from the boarding house, whilst good friend Skellenger was pitching our tent, it being then about noon;—some rambled over the beach in search of sea gulls' nests on the naked sand, and in a short time some dozen eggs were gathered—they are of a dull pea green colour covered with black specks, and in size between the pigeon's and the guinea fowl's—and are said to be very nice. These poor birds continued, during our stay, to whirl about in circles over our heads, keeping up a great clamour, as if to frighten us from their ground; yet fulfilling the original mandate—"And the fear of you, and the dread of you, shall be upon every beast of the earth, and upon every fowl of the air, and upon all that moveth upon the earth."

Returning soon, and seated under our canopy, fanned by a most delightful sea breeze, there came down, driven by many horsemen, as if to amuse us whilst the cook kindled his fire in the rear ground, a drove of more than a hundred wild cattle, of all kinds, colours and ages, who "owned no master's stall," to be driven, swimming, some hundred yards, across the mouth of the sound, to remove them, as I understood, from one pasture to another less exhausted, and at this season less infested by flies. For this purpose it is necessary to wait for a "slack-tide," lest they should be driven out in the current to the ocean. The sight of so many cattle, swimming in a dense crowd, and under evident alarm, was to me highly curious and attractive. They reminded me, as they approached in a vast body slowly from a distance over the sand, of the elephantine portion of an army in olden time. This spectacle had scarcely passed before the faggots were sparkling under, and the lard was melting in the pan; when most opportunely and much wished for, the messenger "hove in sight," sent by our good landlord Mr. Hughes, with bread, plates, knives and forks, salt, pepper, brandy, "wine, that maketh glad the heart of man," a demijohn of cool water, and ice in abundance. And oh, ye hungry epicures, if ye have tears to shed for your stomach prepare to shed them now! Imagine yourselves of a party, far away from the odious sight of brick walls, and satin sofas, mahogany chairs and tables covered with fine linen, "camped out" like a troop of flying Arabs, the honest cook coming with pan after pan in quick succession, laying on your plate, piping hot, the trout, the perch, the flounder and the rock and the sheeps-head, and better yet, the dear little thing about six inches long, most aptly called here the *goody*, that in very richness melteth away in the mouth—the most delicate and sweet of all pan fish—with plenty of cool drink at your side with which to cheer your heart and pledge it to attendant beauty—"brightest progeny of heaven!"

But I must have done, yet cannot close this tedious sketch, without repeating, and that without disparagement to other good establishments here, that I never stopped at one where all reasonable wishes were met by more prompt and kind attention than at Mr. Hughes': and of all men to raise either children or fish, give me friend Aaron Skellenger—Hannibal himself was not more familiar with the less valuable art of war. One of the Party.

AGRICULTURE.

A NEW TREATISE UPON WOOL AND SHEEP.

Translated from the French by the Editor of the American Farmer.

(Continued from page 130.)

Section 6.

Of the relation between the properties of Wool, and its employment by the Manufacturer.

The principal object of the wool grower being, to obtain the raw material best fitted to the purposes of the manufacturer, it is presumed that he will not be indifferent to the result of our researches concerning this important subject. We further expect the approbation of manufacturers themselves, who will discover in our labours, a desire to diffuse the knowledge of facts, that are necessary to secure the prosperity of our factories; for, it cannot be too often repeated, that our object is, not only to furnish the best directions for the raising of wool, to those who are devoted to that pursuit, but likewise to relieve the manufactories of France from the burthensome and even mortifying obligation under which they labour, of being compelled to draw from foreign parts the raw materials of their finest and best stuffs. If any of the facts, which we are about to detail, should appear of doubtful accuracy, we intreat the manufacturers to communicate to us their observations upon them—which will be gratefully acknowledged. It is but just, however, we should premise, that we have already consulted many as to the correctness of those points, towards which we have more particularly directed our attention.

Our object is not to follow up the relation existing between the properties of the wool and *all* the manufacturing operations; we shall confine ourselves to the indication of those that are more particularly interested in the *fundamental* operations of the factory—and we shall inquire into the principal relations existing between the properties of the wool and these fundamental operations. Thus we shall be naturally led to our main object, which is, to point out to the wool grower those qualities that give value to the wool, and those defects which it is urgent in him to endeavour to prevent.

All the sorts of woollen stuffs that are made, may be classed under two heads, viz: Woollen stuffs that require fulling, (*tissus qui subissent le foulage;*) and woollen stuffs that do not undergo this operation, (*tissus qui ne le subissent pas.*) To the first we shall give the name of *cloths*; to the second that of *worsted*, (*étoffes rases.*) This division of the stuffs occasions a corresponding classification of the wools, viz: into *clothing*, or *carded wools*, (*laines de carde,*) and *long or combing wools*, (*laines de peigne.*)*

Of the Wool as regards the manufacture of Cloth.

The first property which the material used for the manufacture of cloth should possess, is, that it admits of being felted; for without this it would be impossible to make cloth. All the varieties of wool have more or less of this property.—*Felting*, it is well known, is that property, which the hair of certain animals, and the filaments of certain vegetable substances, possess, of uniting more closely in proportion as the stuff, by which they are kept together, is more wrought or beaten. This operation is generally performed by means of large hammers variously contrived.

The action of these hammers produces three principal effects upon the stuff; namely, to extend, (*étendre,*) to distend (*etirer*), and to break (*rompre*), the filaments of the thread with which the stuff is made. The consequence of these results, is a development of the three properties of the wool, which we have named, *the elasticity of the curl*, that of *shrinking*, and that of *contraction* (See American Farmer, page 104.) This we shall now proceed to explain.

The blow of the hammer, or the act of compression, will affect the filaments either in the interior or on the exterior of the thread. In the former case, the filaments tend to resume their original position, in doing which they become entangled; and this is the *commencement of the felting in the interior of the thread itself.* The *elasticities of the curl, and of shrinking*, take effect at this stage of the process, in a manner too evident to require any particular demonstration.

The same phenomenon occurs, in consequence of the action of the hammer, upon the exterior of the thread. The extremities of the filaments with which it is covered, pressed on all sides, tend to regain their natural positions, and the more they are beaten the worse, if elastic, will be the intimacy of their intermixture during this reaction. So that the external filaments of one thread, become entwined with those of the adjoining thread, and produce *the felting of the threads of the stuff.*

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* There are certain stuffs which although manufactured with combed wools, (*laines peignées*) still undergo a slight fulling. Of these we do not make a separate division, because what we shall say of the others will equally apply to them.

But, in this double result of the fulling operation, not only may the threads have been extended and distended, but they may also have been broken, and this circumstance, by bringing into play the elastic force which we have named, of contraction, (*crispation*,) will further contribute towards the felting. Accordingly, whenever a filament is broken, its extremities retire with a whirl, by which they are the better enabled to become entangled with other similarly broken filaments, inasmuch as thereby their elasticity of contraction and their suppleness are increased.

These remarks sufficiently shew why, by the operation of fulling, a piece of cloth which was very thin when taken from the loom, becomes considerably thickened in felting, at the expense of its breadth and length. It will, therefore, not have been useless that we should have spoken of this most simple operation of fulling, as we must have perceived that elasticity, in its various modes of acting, is the one and only cause of felting. For, why are woollen stuffs more or less easily fulled? It is because there are wools that are more or less elastic, and that the different processes which they are subjected to, in weaving and fulling, are more or less favourable to the development of this property. On the other hand, why is a piece of hempen or flaxen stuff entirely incapable of being felted, and would more likely be kneaded into a paste? It is because the filaments of their thread are entirely deprived of those modes of elasticity, which favour the operation of felting. Accordingly if we examine a filament of hemp we will perceive that it is straight—without a single curl: its sole elasticity is that which we have named *of redressement*, (see page 105,) which from what has been just said, is evidently useless.[*] This last circumstance is made evident in the case of coarse wools, which have more of this property than the fine wools, but which also are less easily fulled. We may add, that the filaments of hemp are not susceptible of extension; the fibre of coarse wool manifests it in but a small degree, and the finer the fibre the greater is this property evinced; now, as it is this last which felts the best, we have reason to conclude, that *extensibility* is a favourable condition for felting.

Lastly, if we break a filament of hemp, the separated parts show no disposition to curl or frizzle; and, in our opinion, the most powerful cause of felting is proportionate to the degree of this elasticity of contraction (*elasticité de crispation.*) Hence, very supple wools, to which this property greatly belongs, are the most easily felted; the contrary being the case with the rough and coarse wools.

We have dwelt upon this subject in consequence of its importance; and it may even be necessary that we should here briefly resume what we have said above. It follows, therefore;

1st. That the principal cause of the phenomenon of felting, is the modes of elasticity peculiar to the fibre, in connexion with its property of extensibility, *this being one of the conditions of suppleness.*

2d. That the elasticity of contraction (*crispation*,) which is in direct ratio to the suppleness, evidently contributes the most to felting; after it, the elasticity of the curl, this *being one of the qualities, and ordinary accompaniment of superfineness.*

3d. That, therefore, the whole amount is, that *fineness* and *suppleness* are the most favourable conditions for felting.

Let us now examine what are the most useful and pleasing qualities of cloths, and we shall inquire into those properties of the wool, by which they are produced.

These qualities are: *strength* or *wear, impermeability*, fineness, lightness, softness and mellowness, (*moëlleux*.)

Of the Strength of the Cloth.

In the third section of this chapter, we showed, that a thread made with the fine and supple fibre of wool, was stronger than one of the same size, made of coarser and harder fibres.[*] Besides, we have seen, that it is owing to these qualities of *fineness, suppleness*, and the property of curling, (*caractere ondulé*) that the fibres are enabled to unite intimately, during the operations of spinning and fulling; again, if the contraction of the fibres be very strong, the thread which they yield, will not require to be so furzy, in order that it should felt, and hence it may be more thoroughly twisted, and acquires a corresponding strength. From these considerations, we feel ourselves authorised to conclude, that the strongest cloths, (*cæteris paribus*,) are those that are manufactured with the finest wools, such as are generally curled in their whole length, *supple* in all directions, *extensible*, and susceptible in a high degree of the *elasticity of contraction*. Cloths manufactured of such materials, will better resist the wear and tear of all sorts, as well as the natural effects of time.

Of the Impermeability of the Cloth.

The impermeability of the cloth is a consequence of the degree of union between the threads and the fibres of which it is composed.

This quality, which is so important by affording a resistance to the action of external air and of moisture, essentially depends upon the degree of felting.

That wool, consequently, which is the most capable of felting, will always be that with which impermeable cloths can be manufactured; and in this respect also, the finest and most supple wools will be found to have a decided advantage. These qualities of fineness and suppleness will likewise contribute to render the cloth impermeable, during the operation of weaving, because in proportion as the warp in crossing the woof leaves fewer openings in the stuff, so will of course be the closeness and furnish of the cloth.

Of the Fineness of the Cloth.

The fineness of the cloth proceeds, it is evident, from the fineness of the thread, and this latter is a consequence of the fineness of the fibre.

Of the Lightness of the Cloth.

The lightness of the cloth depends upon the fineness of the wool, since with a less weight of wool which felts easily, a cloth as solid and as warm can be made, as with a greater weight of wool without this quality. This needs no explanation.

Of the Softness and Mellowness (moëlleux) of the Cloth.

To what else, finally, are we to ascribe the softness and mellowness of the stuff, than to the softness of the fibres of which its nap, or down, is composed? Now, this quality depends upon *suppleness* and *fineness;* and thus we find them completing the beauty and value of the cloth.

Thus we have successively passed in review the principal qualities of the cloth, and we have found them to depend principally upon the fineness and suppleness of the fibre.

But there is another quality which we have not mentioned, because it bears a relation to all the others, and besides it is of too much importance not to appear in the light of a matter of course, we mean the uniformity of the fibre in its whole length, as regards fineness, suppleness, strength, elasticity, &c. The want of this uniformity will be apparent when, the curls, which were numerous and uniform towards the root of the hair, suddenly become larger and consequently less numerous, and finally disappear at the end. A cause of this may be the corrosive effects of the dung with which it may have been accidentally covered. This defect is pretty common in some of the superfine wools of Saxony, and has given occasion to the operation called *em·chage*, which consists in shearing the extreme ends of the fleece.

This remarkable correspondence of the best qualities of the cloth, with those of the superfine wools, is well worthy of attention. If its consequences be considered, they serve to explain the marked difference in the price of a superfine wool, and one of great fineness, which, at first sight, is not pronounced inferior, yet, one will really be worth double the other. This difference results from the fact which we have pointed out, namely: that the qualities of the wool are always combined, so that the finest and most uniformly curled wool, will also be the most flexible, the most extensible, the most uniform, the most susceptible of manifesting the *elasticity* of *contraction*, &c. &c.: consequently the best fitted to secure every good quality to the cloth, not only in direct ratio to its degree of superior fineness, but in a compound ratio of all the other qualities which accompany each other.[*]

Of the Wool as regards the manufacture of Worsted Stuffs.

As we have sought, for the manufacture of cloth, that wool which possessed in the highest degree the property of felting—which property, by the operations of carding, we must endeavour to increase, by separating and shortening the fibres, and diverting them in all directions—so it would seem, that, for the manufacture of worsted stuffs, it is necessary to proceed in a manner diametrically opposite to this. The object to be attained, is, in fact, entirely different. In the latter case, the stuff is not fulled, hence there is no need of aiding the susceptibility of the wool for felting by carding it so as to obtain a furzy thread. On the contrary, the quality of worsted stuffs depends upon the evenness of the thread; for it is to this that the stuff will owe its brilliancy and its softness.[†]

The conditions by which we shall obtain a smooth thread, and which will be soft to the touch, are:

1st. That the wool, before it is spun, be so prepared that all its fibres be made to lie in one direction, and parallel to each other: *hence the necessity of combing.*

2d. That the fibres be obtained as long as possible; because then, their extremities being less numerous in a given length of the thread, will be less apt to rise and destroy its smoothness.

3d. That these fibres be also as smooth as possible, in order that they may be combed with the greatest ease, and with the less loss. The softness of their surfaces being, besides, in proportion to this smoothness.

From these primary conditions it follows, that the qualities required for *combing wools*, are, *fineness*, *suppleness*, and *uniformity* in the length of the fibres.

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[*] *Evidently useless;* that is, when this mode of elasticity is the only one possessed.

[*] This reasoning holds better as regards combed cloths, than as regards felted stuffs; because the wool which has served for the manufacture of the latter, has been carded, during which operation, as well as in that of fulling, the fibres having lost their parallelism and been broken, no longer present that continuity in their length, upon which the strength of the thread mainly depends; nevertheless, the strength of the cloth, it is well ascertained, depends a great deal less upon the strength of the thread taken singly, than upon the property which its fibres possess of felting.

[*] As we have seen that all these qualities of the wool are individually necessary to produce many of those that are highly prized in cloths, it will be easily conceived, why the deficiency, or presence of any must necessarily contribute in a variety of controlling ways to the success of the manufacture.

[†] We must not forget that the softness of the cloth is almost exclusively a consequence of its suppleness; as then its down yields easily in all directions under the pressure of the finger. But the softness of worsted stuffs depends upon the absence of furz on the thread.

We shall dwell no longer upon this subject, but conclude by remarking that we do not possess in France *combing wools* that unite all the desired qualities. *Some*, as the longest merinos, are neither long enough nor smooth enough; *others*, as some of our indigenous wools, although long and smooth enough, want *fineness, uniformity*, and *suppleness*.

There is a wide field open yet for improvement in this department, either by means of judicious *crossings*, or by the importation of original races. But we shall have occasion to recur to these means of improvement in a subsequent part of our work.

The next article will be "on the different species of wools, and the manner of studying their qualities."

ADVANTAGES OF AN AGRICULTURAL LIFE.

(Concluded from p. 139.)

Prosperity.

In announcing my intention, to devote the present essay, to an attempt to prove that prosperity is the third advantage enjoyed by the Agriculturist, I am rather apprehensive, that I shall startle a numerous host of the petty tillers of the soil, who claim the appellation of farmers, with about the same justice and propriety, that lawyers might demand that of judges.

These are men, who answer no higher purpose than to affix their seals to the curse of sterility bequeathed to their land, by its previous owners, who extracted every particle of fertility from its bosom. They expect to obtain sustenance and profit from exhausted land, and often pass their lives deploring the hardships incident to their situation, and wondering why their labours are so uniformly unproductive. They possess land, labourers, and perhaps utensils, but the possession of requisites, by no means constitute the proprietor, a farmer.

And here I cannot help remarking that it is such individuals, that caused agriculture to be held at one time, in such general disesteem, from which it is now I hope, rapidly rising to its proper station amongst the vocations of life. But, as it is still infinitely below that degree of esteem in which it deserves to be regarded, I presume, it cannot be considered either, an useless or uninteresting digression, if I here enter into a brief expose, of the high station, amongst the employments of life, in which it was placed by the ancients.

According to Herodotus, farmers, though they were placed according to Diodorus in the third class of society, were held in great esteem, in almost every part of Egypt. It was to them indeed, that this country principally, owed its riches and plenty, and the experience of every subsequent age, has clearly demonstrated that the culture of lands, is an inexhaustible fund of wealth in every nation.

We are told by Xenophon, that the Persians bestowed great care and attention upon agriculture. The worthy prince of that country evinces great anxiety, that husbandry should flourish. He had offices erected, for inspecting rural labours and economy. He caused an exact account to be given him, how every province and district was cultivated. I will here introduce a very just and very noble encomium upon agriculture, by that illustrious Athenian sage, Socrates, he considered it as "an employment of all others, and the most worthy of men's application, the most ancient, and the most suitable to their nature; as the common nurse of persons of all ages and conditions of life; as the source of health, strength, plenty, riches, and a thousand sober delights, and honest pleasures; as the mistress and school of sobriety, temperance, justice, religion; and in a word, of all kinds of virtues both civil "and military."

Hiero, king of Syracuse, used every possible exertion, to reflect honour upon agriculture, which he considered, the certain means to render his people happy, and to diffuse abundance, throughout the land. He even, took the trouble, to engage in laborious study, in order to make himself, thoroughly proficient in the rules of agriculture. We are informed by Pliny, that he composed books upon the subject. Hiero was extremely popular, his name was always dear to his subjects, his laws and constitutions, always so much venerated, that they were always observed as sacred and inviolable, not only in his reign, but in all succeeding times; not only by his subjects, but even by their conquerors, the Romans.

Lycurgus, imagined that the only effectual method of banishing, insolence, envy, fraud and luxury, and the other distempers of the state, was by making an agriculturist of every citizen of Laconia. This extraordinary scheme, was caried into successful operation, it is well known, and has ever since, been ranked, amongst the laudable institutions of this immortal legislator.

The Israelites, the Egyptians, the Greeks and Romans, all inculcate the high regard which ought to be paid to agriculture. This, let us remember, was the *constant employment*, of the bravest and most warlike people in the world, every reader ought to know, that I allude to the ancient Romans.

From the foregoing detail, we ascertain, that agriculture, was a vocation so honourable, that the wisest, best, and bravest, most willingly engaged in it.

It has always been, matter of astonishment what advantages the Egyptians, by their labour, derived from a limited extent of country, whose soil was was made wonderfully fruitful, by annual inundations of the mysterious Nile, and the indefatigable industry of the inhabitants.

In Persia, the encouragement which those who tilled and improved their grounds met with, and the punishment inflicted upon those idle persons, who through laziness and negligence, did not do so, begat a spirit of industry, which produced advantages to the country beneficial, to an incalculable degree.

In Sicily the admirable efforts of Hiero resulted, in making the principal riches of the state, and the most certain fund of the prince's revenue, consist in the produce of agriculture.

"The cultivation of lands," says a distinguished historian, "besides employing an infinite number of hands which would otherwise remain idle and unprofitable draws into a country, by the exportation of grain, the riches of the neighbouring nations. and turns their current into the houses of the people, by a commerce which is renewed every year, and which is the deserved fruit of their labour and industry." This is a short, but forcible description of the great importance of agriculture, and cannot too often be repeated, as this employment, is unhappily too little regarded, too much neglected.

I will now return to the particular object of the present essay. To ensure prosperity, there are a few indispensable prerequisites, which I deem it proper here to enumerate.

The farmer must have good land.

He must have system.

He must reside upon his farm.

He must give his personal attention to its concerns.

In the following remarks, it must be understood that I refer to the farmer—upon fertile soil—with a judicious system, residing on his possessions—prepared to give his personal attention, to its most unimportant concerns.

Experience teaches us, that man will labour most cheerfully, when he expects profit to accrue, especially when he can mingle pleasure with his toil. It is an indisputable fact, that fertile land, upon which the essential labour is bestowed, will reward the farmer many fold. There will be scarcely any one found, I imagine, to deny, that agricultural labour is the most pleasant in the world. It approaches nearer to an agreeable recreation and pleasant amusement, than any other occupation which deserves the name of labour.

Good land will then produce a good revenue, system then becomes necessary to dispose of it to the best advantage, not only for increasing his capital in money, but also to enhance the value of his land, for the increase of revenue, which the proprietor expects from the improvement of his land, constitutes one great source of his profit.

His presence is obviously necessary on the land to enable him to promote these two objects. He can on the land, with every thing before his eyes, originate the best schemes to effect these desirable objects, and plan its ablest execution.

His personal attention is required, that he may provide himself with the knowledge of all the concerns of his farm, its various wants, &c. otherwise he will be forced to go blindfold to work.

I am convinced that in our country, while land is considered only as the means of subsistence, profit and enjoyment, and not as in other countries as the means of power and protection, that it is the farmer's own fault if he is not prosperous. For here, we know the farmer has every inducement, to render as great as possible, the produce which is to be entirely his own. In other countries this is not the case.

His industry, if called into action, will be rewarded with success. And who has so great an inducement to become so as the farmer? He is not confined to a single crop—it is not wheat which is to repay his labour—nor tobacco—nor corn—nor rye—nor oats—but the whole five combined. He is not obliged to limit himself to the growing of grain, he may raise thorough bred horses, which has often been a productive source of revenue to the farmer—he may raise for market, stock of various kinds, which will all contribute to increase his income.

It is in the power of every farmer, to secure prosperity by furnishing his table from his farm—and the various articles of apparel from his flocks and his cotton. By never expending money to purchase what he can dispense with, and converting into money every thing that he can spare. This will enable him to give back to his land annually, a larger portion of what it produces, (and a part he must return) than he could otherwise do.

If the farmer thinks proper to purchase clothing, he may prosper if he is economical.

If he is energetic and active, his industry will produce profit, his "*economy*" will enable him to preserve that profit—and the system of improvement will keep his land in a situation annually to reward his labour.

I have now concluded my essays upon the great advantages of agriculture, which as I have attempted to prove consist in Health, Happiness, and Independence.

I may hereafter, consider the "pleasures of agriculture," which I shall be better able to recommend having often participated in the delights—and never having enjoyed the advantages of agriculture.

Poets have always represented that life most productive of pure and genuine pleasures, where man was contented with the simple necessaries of life, where he quenched his thirst in the crystal fountain, satisfied his hunger with the flesh, and clothed his body with the fleece of his flock. Here nature appears in the greatest perfection, and furnishes those scenes, which are most apt to delight the imagination. Here we delight to gaze upon a prospect, well laid out, and diversified with fields and meadows, woods and streams. Before I conclude I must observe: and I have the authority of Socrates for the assertion that the country is best adapted to pursue undisturbed the precepts of religion; here there are no temptations to transgress the laws of God. Man, till the approach of age admonishes him he is approaching dissolution; may rant in pleasure's ring, heedless of religion and its laws—but piety is the only proper and adequate relief of decaying man. He that grows old without religious hopes, as he declines into imbecility, and feels pains and sorrows perpetually crowding upon him, falls into a gulf of bottomless misery, in which every reflection must plunge him deeper, and where he only finds new gradations of misery and new precipices of horror. Faltore.

July 10th, 1829.

Selected by David Ap Owen.

The importance of wholesome water to Cattle.

"I lately visited Dr. Jenner. The Doctor condescended to converse with me on the diseases of cows; and informed me, that giving wholesome water to cows, was of more importance than the public is aware of. He told me there was a farm in the neighbourhood, where three or four farmers had sustained so much loss from abortions in their cows, from red water, and other diseases, that they were either ruined or obliged to give it up. The present occupier suspected that the water they drank was the cause of the mischief, and therefore sunk three wells on different parts of his farm, and pumped the water into troughs for the cattle. The ponds were fenced round to prevent them from getting at the water, so that they drank only from the troughs. Since that time the farmer has not had a single abortion or one case of red water. His cattle have been free also from swollen udders; and what is of more importance, he makes more cheese, and his cheese is greatly improved in quality. The Doctor wished me to visit the farm, which I did, and another at a short distance. I found that the usual mode of watering cattle, where there was no brook or running water, was from a pit of stagnant rain, or spring water, to which the cattle had access by means of a sloping path on one side only. It has been observed that cattle, immediately after drinking, dung or make water; and almost always before leaving the sloping path—the dung and urine therefore flow into the pond, or are washed into it by the rain, and make the water so impure, that it has been found to kill eels, and nothing but noxious insects can live in it. The disgust which such water must excite in animals accustomed to drink from brooks, is gradually overcome in a great measure, and they sometimes drink it without appearing to suffer; but the influence it has upon the animals' health is strikingly shown on this farm. On visiting the other farm, where the cows had been prevented from drinking this pond water only six months, the beneficial effects of drinking wholesome water was sufficiently obvious to demonstrate its utility. Before that time, they were frequently meeting with red water and swollen quarters; that is, a swelling of a part of the udder; but since the cows had drank pure water, not a case of either bad occurred."

[*White's Compendium.*

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[This reminds us of a fact that fell under our observation last week—a lady near this city had kept in a glass globe, for some weeks, some beautiful gold fish; they grew finely and were the admiration of all who saw them; subsisting entirely on pump water. Some time since, for some cause she sent for water to a neighbouring pump, very near, and perceiving soon after that the fish became sluggish, she removed the water and they recovered. The other day, the pump at the door, from which her fish was supplied, being muddy, she sent to a neighbour's pump not more than 150 yards distant—The water such as is used every day, and apparently very wholesome and clear. The fish globe was filled with that late in the evening, and the consequence was, the death of all her beautiful gold fish the next day. This proves how much depends on latent qualities of water, which may be often the cause of sickness to man and beast as well as fish. [*Ed. Am. Far.*

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Wounds in Cattle.

"The treatment of wounds in brutes is much the same as that practiced in healing those on the human body. The operations of nature are the same in both; and from these are derived the principles which direct the management of wounds. The cruelties which are practiced by ignorant and unskilful persons, in applying their nostrums, and knives and pincers, cords, and burning irons, to poor dumb animals, call loudly for the intervention of common sense and humanity." [*Mackenzie.*

BEET SUGAR.

"*French Chamber of Deputies,*
Sitting 15*th May*, 1829.

"The makers of sugar from Beets, at Pont a Mousson, petitioned that the duties on foreign sugars should remain, at least for some time, in order that they might prepare for the alteration.

"W. Thouvord, desired to present some observations upon the petition, the principles of which he advocated; the making of sugar from Beets is highly useful to the country. If we continue to advance in its manufacture, as we have done for some time past, we shall augment the productive wealth of France, to an amount that will approximate 80 millions of livres, or in round numbers about $15,000,000. The manufacture of Beet sugar renders other services to agriculture; but, that which is next important to the human mind, is that it occupies and sustains a numerous population at a period of the year that there is a deficiency of other labour. It also puts into circulation many articles of great value.

"M. de Marmier, said the cultivation of the Beet is of the highest agricultural importance. It prepares the ground for wheat. It nourishes a large population. Protection and encouragement are due to the manufacturers which sustain this population, and which he produced to us one of a most valuable article of provisions."

Mr. Skinner, I translate the above from a French paper, merely to shew in what agricultural light the subject of Beet sugar is *now* viewed in France. The application to the chamber is likely to fail; but, as to the encouragement of domestic manufactures, without legislative aid, there is no question. I flatter myself the hints may prove of some use to the American Farmer. Amphicon.

HORTICULTURE.

ORNAMENTAL FLOWERS.

In reviewing a treatise on the cultivation of ornamental flowers, by Roland Green, the London Literary Gazette has the following remarks:—"We are pleased with any thing which may attract the attention of our citizens, especially the female part of them, to the delightful science of floriculture. For the humble in life it affords a cheap and pleasant recreation; and for the rich, what bestowal of their abundant leisure can ensure a greater portion of real epicurean enjoyment than the cultivation of beautiful plants? It is alike a source of pleasure to youth and to age. The happiest old man we ever met with was the superintendent of the Liverpool conservatories. He had lived for a long life among flowers and verdant plants, and in his age was flourishing as the greenest of his charge. With a beautiful enthusiasm the old man bent fondly over the opening bud, or walked proudly among the shapely and the blooming people of his little paradise, as a prince amidst his children and vassals; and certainly no conqueror ever bore his trophies with more triumph than he did the jewel presented him by Alexander of Russia, in token of his bloodless conquests over the vegetable kingdom; nor is the learned and venerable gentleman, under whose care the garden of Liverpool has obtained a superiority over all others in England, alone in the love of floriculture. The most eminent philosophers and poets have not disdained the humble lessons and simple delights of the flower garden; and we do believe that the progress of pure taste and true refinement is in no way more distinctly marked than by the cherishing of nature's beauties. For ourselves, and we know we are not singular in that respect, whenever we pass a dwelling, the windows of which are glowing with flower-vases, we 'desire with it more acquaintance,' and set it down as the abode of 'good people.' We do not believe that disorder or evil passions can prevail in a household where a love for the quiet pleasures of floriculture is evinced, and have no doubt that the presence of these fair and innocent things of nature's loveliness has a deep salutary effect on the human character."

New York Horticultural Society's Exhibition.

The members of the society and visiters were gratified last evening, (July 7,) by a fine display of the most beautiful flowers, from the proprietors of different gardens in the neighbourhood of the city. Rarely, if ever, has a collection been exhibited combining so great a variety of vegetable beauties which at this season of the year are most in request among our florists. Of the magnificent *carnation*, which sports into such innumerable varieties, upwards of 100 distinct sorts were brought forward. These were principally produced at the garden of Mr. William Prince, at Flushing, to whose skill and enterprise the catalogue of our garden products is so largely indebted for some of its most valuable specimens. Among the samples of fruit, some remarkably fine gooseberries were presented to the society by Mrs. Winter, of Flushing.

[*New York Eve. Post.*

RURAL ECONOMY.

BEES.

I have found my hives much annoyed by the inroads of the *miller* and her progeny, and on reading the article in the 7th No. of the present volume of the Farmer, I removed some of them, and grooved the floor of the bee house, opening a channel three quarters of an inch wide and half an inch deep, of the exact extent of the hive, so that the lower part rested immediately over the grooves, which I filled with fine salt; anticipating that I should thereby form a bed which the miller would not select for the deposition of her eggs; and that if placed in contact with the salt, the eggs would not produce the worms so destructive of our hopes of honey. My expectations of success have, however, been much abated by reading a stricture on the first article in the 11th No.; and that I might not be confined to a single experiment, I placed other hives on grooves filled with finely pulverized charcoal. At a future period I will give you the results of these attempts to guard against the bee moth, and in the mean time beg the favour of your calling the attention of the keepers of bees to the most convenient and successful protection of the hives from the injurious visits of these insects. Medicus, in the article last referred to, observes, "A treatise recently published by Messrs. Marsh and Capen, on the management of bees, and the prevention of the bee moth, will be found to contain the requisite information;" let me request the favour of your transfering to the "Farmer," the information here spoken of. G. S.

BEES—INQUIRY.

What is the largest number of a swarm? I lately, by weighing a hive before, and after introducing the bees, ascertained the weight of the swarm to be six and three quarter pounds; by weighing a few that were killed in hiving, and computing the living and dead bees as of the same weight, I made the entire swarm to consist of 14,600 bees. Supposing the emigrants to be somewhat less than the parent stock, it is probable that previous to swarming the hive contained upwards of thirty thousand—the capacity of the mother hive was nearly equal to four thousand cubic inches. Philo Apis.

LADIES' DEPARTMENT.

THE FARMER'S SONG.

Away with grandeur, pomp, and gold;
  Away with childish ease,
Give me but strength my plough to hold,
  And I'll find means to please.

'Tis sweet to toil for those we love;
  My wife and darling boys,
But tend to make my labor prove,
  The sweetest of my joys.

The humble morsel I procure,
  When labor makes it sweet,
Is eaten with a taste more pure
  Than meats that monarchs eat.

'Tis mine;—yes, 'tis my happy lot,
  From cares and avarice free,
To own but this secluded cot,
  Sweet friends and liberty.

Thus I, no monarch on his throne
  Can grudge his destiny;
Let him his weight of cares bemoan,
  Whilst I am truly free.

When labor wearies and grows dull,
  I with my dog and gun,
Set forth the finest game to cull,
  And thus all sorrows shun.

Now tell me all ye gouty train,
  Who have what fortune gives,
Is not the cheerful country swain
  The happiest man that lives?

SPORTING OLIO.

GRAND FETE CHAMPETRE AT HOLLY-GROVE.

On Monday last, their Royal Highnesses the Dukes of Cumberland and Sussex, and Prince Leopold, honoured the Duke and Duchess of St. Alban's with their company, at their villa, to celebrate the anniversary of their Graces' marriage. The invitations were not numerous, being chiefly confined to the relatives and near friends of the Duke and Duchess, which included the families of Bute, Harrowby, Beauclerk, Guilford, Burdett, Besborough, Dundas, Gordon, Wellesley, Bristol, Breadalbane, Abingdon, Carlisle, Coventry, Chesterfield, Dudley, Harrington, Lauderdale, Radnor, Rosslyn, Tankerville, Wemyss, Eastnor, Allen, Castlereagh, Ennismore, Normanby, Lyndhurst, Graves, Elphinstone, De Roos, Heytesbury, Petre, Robert Spencer, Stuart de Rothesay, Southampton, Wharncliffe, Trotter, Princes Polignac, Puckler. Muskau, Cimitelli, &c. The company began to assemble about two o'clock, and at four, breakfast, which was laid in eight rooms, was announced. During breakfast, his Royal Highness, the Duke of Sussex, in a most flattering and condescending manner, proposed the health of the Duke and Duchess of St. Alban's. The Duke of St. Alban's modestly returned his and the Duchess's thanks, and mentioned how happy he was surrounded by his illustrious guests, and dear friends and relatives, the greater part of whom were present at his marriage. He said he would, if he could, have revived an old custom of claiming a flitch of bacon at Dunmow; but as he could not do that, he begged the Duchess, as a mark of his affection and regard, to accept a silver fruit basket (made by Rundell and Bridge, and most splendid and valuable,) on which was engraved a flitch, with the following lines, which his grace repeated remarkably well, to the great amusement of the Royal and distinguished party:—

> "In love connubial, formed to live and last,
> This gift records a blissful twelvemonth past;
> We claim then, boldly claim, thy flitch, Dunmow,
> First, of the blest, who keep the marriage vow."

The duke then adverted to a superb plateau on the table, presented, most affectionately, on this occasion to the Duchess, by the dowager Marchioness of Bute, consisting of the Trajan and Antonine columns, two Egyptian obelisks, and an equestrian figure of Marcus Aurelius, exquisitely executed in bronze, gilt, at which the Duchess and himself felt highly gratified.—The Duchess said, she wished she could answer the Duke in a proper manner, and though she had spoken in public on former occasions,[*] she could not do so on this; but in return, she begged the Duke's acceptance of a six-oared cutter, called the Falcon, in allusion to the office of Grand Falconer of England—immediately afterwards the boatmen, dressed in yellow silk and green (the livery of the Duke,) with their oars, and the steersman with his flag, made their appearance in a conservatory adjoining, in which the "Canadian Boat Glee," with many other songs, were then admirably sung by Mr. Braham, Miss Stephens, Mr. and Mrs. Knyvett, Miss Grant, Miss Goward, the Misses Cawse, Mr. Vaughan, Mr. Leete, and others, with which every one was highly delighted. The morning exhibited a constant succession of amusements, dispersed in various parts of the grounds. At some distance from the house, Russian, Spanish and German ballets were danced in a tent, erected for the purpose, near to which others amused themselves with archery. The Tyrolese Minstrels and the Herrmans delighted others of the company, and the intervals were enlivened by the military band and bugles. The whole concluded with quadrilles and waltzes, in a temporary room, erected near the house, which was illuminated; and, at the close of the day, the ground assumed the appearance of fairy land, from the number of variegated lamps suspended from the trees. Soon after 11 o'clock the company retired.

[*London paper.*

[* The reader knows she was a celebrated actress, married a Mr. Coots, a man of great fortune, at his death, took the Duke for the sake of a title, and he, her, for the sake of her immense fortune. In such cases both parties are usually left to pursue their inclinations *ad libitum*, and often live as *harmoniously together*, in a state of *separation*, as those do who run away with each other "all for love," and live like cat and dog in the same house.]

MISCELLANEOUS.

INTEMPERANCE.

In certain parts of the United States, regular war appears to have been commenced against this foe of the human race. In several of the cities, societies have been formed, composed of active philanthropists, the best efforts of which are directed to the discouragement of the intemperate use of ardent spirits; and in the anniversary discourses which are delivered, the excesses of the vice are presented in the most odious and appalling colours. The following is one among the numerous *missiles* which have been levelled at *"the enemy."*—It is at least a good parody of a noble original.

New Declaration of Independence.

When in the course of human events it becomes necessary for one people to dissolve the *intemperate* bonds which bind them with another, and to assume the *sober* station to which the laws of nature and of nature's God entitle them, a decent respect to the opinions of mankind requires that they should declare the causes which impel them to the separation.

We hold these truths to be self-evident: That all men are created *sober;* that they are endowed by their Creator with certain unalienable rights—that among these are life, liberty, and the purity of *health;* that whenever any *habits* become destructive to these ends, it is the right of people to alter them. Prudence indeed will dictate that *habits* long established should not be changed for light or transient causes, and accordingly mankind are more disposed to suffer than to right themselves, by altering the habits to which they have been accustomed. But when a long course of indulgence in luxury and intoxication evinces a design to reduce men to absolute *beastliness*, it is their duty to provide new *liquors* for their future security. The history of *rum* is a history of repeated *revels* and *inebriations.* To prove this let facts be submitted to a candid world.

It has called together men at places unusual and uncomfortable, and distant from the depository of their *family* records, for the sole purpose of reducing them into compliance with *gill and half pint* measures; it has endeavoured to prevent the population of these States; it has made Judges depend upon its *excitement* alone; it has erected a multitude of *grog shops*, and sent among us swarms of drones to eat our substance; it has kept amongst us in time of *temperance*, standing *distilleries;* and in some cases, it has rendered the military superior to the civil power—it has subjected us to a jurisdiction foreign to our *constitution;* it has cut off our respectability with all the world; it has imposed *imbecility* on us without our consent; it has transported us *half seas over*, to be tried for pretended sobriety; it has taken away our appetites, and altered fundamentally our former *habits;* it has invested itself with power to rule us in all cases whatever; it has plundered our barns, ravaged our lands, burnt our throats, and destroyed the lives of our people; at this time large casks of foreign liquors are transported to complete the work of death, desolation and drunkenness, a thing totally unworthy a *civil liquor;* it has excited domestic broils amongst us, and has brought on us the merciless libertine, whose known mode of warfare is an undistinguished destruction of happiness among all conditions of people. A *liquor* which is thus marked by every act that can define a tyrant, is unfit to be the ruler of any people. Nor have we been wanting in attention to *Brandy* and *Whiskey.* We have warned them from time to time of attempts to extend an unwarrantable jurisdiction over us; but they too have been deaf to the voice of reason. We must therefore acquiesce in the necessity which denounces our separation, and hold them as we hold all liquors—enemies in excess—in moderation friends.

The use of camphor, pepper, cedar wood, savine, &c. to keep moths from clothes, is unavailing if the clothes are not frequently taken out, brushed, and aired; and if clothes are taken out, brushed and aired, no camphor or other ingredients is necessary to keep them from the moth, or other insects. To convince himself and others of the uselessness of camphor and other nostrums alone, M. Vinet, of the Strasburg Museum, has hatched moths in an atmosphere impregnated with camphor, and the other substances mentioned.

They tell a story of an Irishman travelling some winters since in Germany, who seeing another bed placed above his own, concluded that it must be the custom here to sleep in layers, one above another. As no one came, he rung the bell, and directed the servant to tell the gentleman who was to lie on top, that being very sleepy, he would thank him to come soon to bed, as he did not like to be disturbed after he had fallen asleep.—*Dwight's Travels in Germany.*

THE FARMER.

BALTIMORE, FRIDAY, JULY 24, 1829.

☞ SILK—COCOONS.—As the culture of silk has been commenced, experimentally, in all parts of the union, many inquiries are made for a market for the cocoons; and we adopt this mode of replying to our numerous correspondents who ask information on the subject. At this time it is believed there is no market for cocoons in the United States. A society has been established in Philadelphia for promoting the culture of silk, one object of which is to purchase cocoons; but at the last accounts we have had, they were not prepared to purchase, but entertained hopes of soon being so. We have endeavoured to impress upon the minds of our readers, the fact, that much of the profits of the silk culture will arise from the reeling of the cocoons, even when a market is established; but under present circumstances, the cocoons should be reeled, as the raw silk will find a ready market in any of the large cities. The process of reeling appears very difficult at first; and so it really is to an unpractised hand: and so would be the simple act of spinning cotton on a common wheel; but after a little experience it becomes quite easy and simple. It is necessary in every thing to get the use of the tools and the fingers, before work can be done properly and with facility—nothing more is wanted in silk reeling, to enable any woman to reel a pound of raw silk a day.

We are glad to hear very favourable accounts from several quarters of the union, of the experiments this year in making silk. They have taken the subject up in the south, in the west, and in the north, in good earnest; and the specimens with which we have been furnished are equal to any thing of European manufacture. And why should they not be? We have a climate beyond all comparison superior to the European for the production of silk; we have the mulberry, equal in fitness, if not superior, to that grown in Europe; and we have the "little spinner" itself, of the "best blood," and all the varieties they have in Europe, and it has been sufficiently proved that it does not degenerate by being translated to our healthful country. Having all these, nothing more is wanted to enable us to make as good if not better silk than is made by the Europeans, but a moderate share of ingenuity and perseverance—and who shall say the people of the United States have not these, at least in an equal degree, to the Europeans generally?

. We have specimens of American silk constantly in the office of the Farmer, for the inspection of those who desire to see it. Among them a cluster of cocoons, of four different kinds of worms—those that spin *snow white* cocoons, orange, sulphur, and flesh colour—the object of which is to show the simplicity of the espalier, or contrivance for the worms to spin on, and the different kinds of worms. For some purposes the white silk worm is far superior to any other, and often indispensable, especially for making silk for goods of a very delicate dye. It has been thought, however, that the white worm is not so profitable as the common kind; but the gentleman who raised the parcel of which we have a specimen, thinks that they are equally as productive as the common kind, and that they possess some important advantages over any other.

Translation from the Journal of Useful and Practical Sciences, by Master Theodorick B. Skinner.

REMARKABLE FRUITS IN THE UNITED STATES.

Not only agriculture is making great progress in America, but horticulture is bringing itself to perfection, it makes every day new discoveries. The taste that all the inhabitants of this happy country have for useful knowledge and industry, will make them direct their attention to all the objects that can increase their happiness and social enjoyment. Capt. Elliott, of the American navy, has taken from South America to Baltimore, some gooseberries, twice the size of those that have been cultivated in that country. Major McKim cultivated near the same city the gooseberries of Mancour (called in French les grossellea de Mancour,) which were near four inches in circumference; that which appears incredible to persons who have not seen in England the same fruit brought by the means of culture to the size of an inch in diameter. The Editor of the American Farmer says that he had received apricots from John Willis, Esq. of Oxford that were seven inches in circumference.

A REMEDY TO PREVENT STUFFED ANIMALS FROM BEING ATTACKED BY INSECTS.

It is known that arsenic or the corrosive sublimate is very good to protect the collections of natural history against the attacks of insects. But when they employ those substances to preserve the hides before they are filled with straw, these lose their elasticity and become soft so that it is very difficult to give them the proper forms; it is besides almost always impossible to employ arsenic in the preservation of insects. They also make use of tallow and camphor, but the latter is in general insufficient. It appears that the best method is that of Mr. Gibson, of Liverpool, and which can be employed with confidence.

I have found, says he, that nothing destroys the insects better than the refined spirits of turpentine; this is the way in which I make use of it: I put the turpentine in a bladder, the opening of which I tie very tight with a piece of waxed pack thread; it is sufficient then to place the bladder in the press where the objects of natural history are contained. If there are any insects in the feathers or in the skin of the animals, they will fall off almost as soon as they inhale the odour; and they will all die in the space of a few days.

It is also known that the spirits of turpentine destroys immediately the insects that it touches; and it is a quicker and more efficacious way to destroy them than that which is generally employed by piercing the body with a pin, and soaking them in *aqua fortis.* The use of the turpentine presents not only an advantage for the collections of natural history on account of its cheapness, but also because of the facility and promptitude with which it can be employed, saves much time to the naturalists, who are making collections. The anatomists might also make the most of it, for the preservation of the preparations which they are accustomed to make.

PROFITABLE FARMING IN PENNSYLVANIA.

[The following extract of a letter, is from one of the most respectable gentlemen of Pennsylvania, who may be relied upon for the correctness of the facts asserted. The articles produced on the farm, exclusive of the whiskey, hogs and wheat, would certainly amount to sufficient to pay the expenses of the farm; and transportation of the three principal articles to market—the cattle would be worth about $30 a head—$600, if only twenty were fattened. With the article of butter alone, we learn verbally, he pays all his grocer's bills. A brief remark on this subject is sufficient—if we had more such farmers we should hear less of hard times.]

Extract—*Columbia, July 16, 1829.*

Some time since I mentioned something respecting my son-in-law's farming, which you seemed surprised at. I will now give you a statement of a part, so far as I know, all of which is raised on a farm not exceeding 300 acres. His people are, one grown man, and one not grown but able to plough, one distiller, and two girls about the house, no slaves, no coloured people does he keep about him. During hay-making and harvesting, he is obliged to get a few more hands, say five or six, for about fifteen or twenty days. Mr. ——— does not work himself, but is always present to see it go on right.

The proceeds of whiskey sold in Baltimore, - - - - - - -	$2,533
67 hogs, - - - - - - -	569
Wheat, say 500 bushels at $1.55, -	775
	$3,877

In addition to this he takes many other articles to market which I am not able to make an estimate of There is oats, barley, hay, fruit and butter; and he fattens from twenty to thirty head of large cattle every year; his land at this time will produce better crops than it did some years ago—you hear no noise, no bustle or confusion, about his house or farm; every thing moves on quietly. We have a hundred farmers in our county that do as well as Mr. ———, and better too.

FLAX PLANT IN NEW ZEALAND.

Martinsburg, Berkeley County, Virginia,
July 15, 1829.

Dear Sir,—I addressed a letter to you perhaps a year ago on the subject of the Flax plant of New Zealand. I am persuaded from several accounts of the article in question, which I have met with, that it would be a valuable addition to our objects of culture in the United States. It is said to be in several respects superior to both hemp and flax. I think it could hardly fail to succeed in some one of the great variety of soils and climates in our country.

Can you procure some of the seed for trial? I am informed that those of our countrymen who are engaged in the South sea whale fishery, always visit New Zealand. From some of these, I should think the seed might be procured, together with some information as to the climate where it grows, mode of culture, handling, &c. I would take it as favour, if you would let me know by letter, whether you can procure the seed in the way suggested, or any other and in what probable time. I should like to try the article here, and have it tried in the western country.

NEW MARKET FOR CATTLE.

MR. SKINNER:

Perceiving an extensive traffic going on, in live stock, between Liverpool and London, and the new settlement in Swan river, I have thought that perhaps it would be possible for good cattle and horses to find a market there in United States' vessels. If it be legal, it might prove a source of profitable speculation in these dull times. I am, &c. AMPHICON.

Baltimore Market.—Flour is extremely dull, and on the decline. We can hear of no sales of Howard street flour worthy of remark, and our quotation is merely nominal; indeed some dealers hold on in the hope of higher prices. The wagon price is generally considered to be $5 *a* 5.12½. Sales of city mills flour have been made at $5. There is no Susquehanna in market. **Grain.**—Wheat continues to decline. A cargo of best red from St. Mary's, was sold at 90 *a* 93; another from Talbot county, at 90 for red, and 92 for white, and another of white brought 95. Our quotations embrace the average rates of the market. A small cargo of new oats was sold yesterday at 32½. **Live Stock.**—Beef is rather dull, but prime would command our rates. The sales since our last, with one exception, have been of quite ordinary stock, at from $5 to $5.50. One lot of prime was sold at $6.

LATEST FOREIGN NEWS.

Since our last the ship Sully has arrived at New York from Havre, bringing dates to the 1st June. There is nothing, however, of importance, the papers being filled with vague rumors and wild speculations relative to the Turkish war. Indeed we are unable to select any thing of interest to our readers except a brief notice of the French markets, which will be found below.

On this side the Atlantic, there is an item of some interest. We allude to the invasion of Mexico by a Spanish army from Cuba. The expedition has really sailed, and we may soon hear of the result.

From the Havre Journal of 1st June.

REVIEW OF THE MARKET.

Cotton.—There has been no variation during the past week. There is a steady demand, holders are firm, and prices supported. All our stock except 300 bales is American. The stock is 23,500 bales against 45,000 at the same period last year. The arrivals of the week, were 3034 bales—1322 from New Orleans—1257 from Charleston—400 of which were S. Islands—465 bales from New York. Sales 2554 bales, including 358 Louisiana ord. to good 85 f. a 106; 776 Mobile 86 a 92½; 509 Tenn. and Alab 81 a 87½; 867 Uplands, common, 77 a 93.

Rice.—The heavy articles of grain have had an unfavourable influence in this article, and 24 f. were with difficulty obtained for 82 tierces of ordinary quality. There are about 600 tierces in second hands.

Flour.—The American on sale is without demand.

The following letter received by the Broke, at New York, and with which we have been favoured by a respectable mercantile house, is not so late by a day as a letter we received by the Corinthian. As, however, that letter is the only testimony which we have seen from Liverpool respecting the important advance in Cotton, it will not be amiss to give it the confirmation of what follows. [*N. Y. paper.*

Extract of a letter, dated Liverpool, May 27, 1829.

"To-day, many buyers have been present. But as the holders are not desirous to sell except at improved prices, it has made many of the buyers shy in acting, as there is a reluctance to pay an advance. You may consider the market firm at 1-8d higher in Brazils, and in American cotton a full ½d. on the last 10 days. The sales to-day will be about 2,500 bags; Boweds 5 1 8d. a 7-8d.; Mobiles 5 1-8d a 5 1-2d.; Orleans 5 1-2d a 7d; Sea Islands 10 1-2d a 13 1 2d; Maranhams 6 1-4d a 6 3-4d., 800 Pernama at 7d. a 7 1-4d."

Prices Current in Boston, July 17

Apples, best, bbl. —— a ——. *Beans*, white, bushel .90 a 1.00. *Beef*, mess, bbl. 10.50 a 11.00; cargo No. 1, 9.50 a 10.00; No. 2, 8.00 a 9.50. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 6.37 a 6.50; Genesee, 6.37 a 6.50; Rye, best, 3.00 a 3.25. *Grain*, Corn, bu. .56 a 58; Rye, .73 a .75; Barley .67; Oats .38 a .40. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 17.50 a 18.00; Navy, mess, 13.00 a 13.50; Cargo, No. 1. 13.00 a 13.50. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool*, Merino, full blood, washed, .27 a 35; do. do. unwashed, .18 a .22; do. three-fourths, washed, .25 *a* .30, do. half blood, .22 *a* .25; do. quarter, washed, .20 *a* .22; Native, washed .18 a .20; Pulled, Lambs', 1st sort, .35 a 37; do. 2d sort, .22 a .25; do. spinning, 1st sort, 27 a .30.

Prices Current in New York, July 18.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .9½ a .12; Upland, .8¼ a .10½; Alabama, .9 a 11. *Cotton Bagging*, Hemp yd. .18 a .21; Flax .13 a .17. *Flax*, American, 8 a 9. *Flaxseed*, rough, tierce ——; clean ——; *Flour*, N. York, bbl. 5.37½ a —; Canal 5.37½ a 5.62; Baltimore Howard st. 5.75 a 5.87½; Richmond city mills, —; country, 5.25 a ——; Alexand'a, 5.25 a 5.50; Fredericksburg —— a 5.25; Petersburg, 5.25 a ——; Rye Flour, 3.37½ a 3.62½; Indian Meal, per bbl. 2.25 a 2.37½; per hhd 13.00. *Grain*, Wheat, Virginia 1.02 a 1.05; N. Carolina, 98 a 1.02; Rye, North, 60 a 62; Corn, Yel. Nor. .50 a .56; Barley, .— a .—; Oats, South and North, .30 a .38; Peas, white, dry 7 bu. —; Beans, 7 bu. 7.50 a 8.00. *Provisions*, Beef, mess 9.62 a 10.12½; prime 7.50 a 8.00; cargo 6.00. Butter, N. York, —— a —; shipping, .8 a .11; Lard, .5 a .6½; Pork, mess 13.00 a 13.50; prime 10.25 a 10.50, cargo 9.00 a ——; Hams, Va., per lb. .9 a .10½; Northern .9 a .10½. *Rice* .2½ a .3. *Tobacco*, Virginia .3½ a .5½ a .6½; Kentucky, .3½ a 5½ a .6½. *Wool*, Merino, American fleece, .32 a .36; Pulled, .32 a .35; common, .18 a .25; Pulled, spinning, .16 a .33.

Prices Current in Philadelphia, July 21.

Bees-wax, yellow .22 a .23; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10.50 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .7½ a .8, No. 2, .5 a .6; *Cotton*, New Orleans .10 a .12, Upland 9. a .10, Tennessee 9. a .10, Alabama 9. a 10; *Feathers*, South. .32 a .33, West. .30 a .31; *Flax* .7½ a .8½. *Flour*, super. 5.00 a ——, fine 4.75; Rye 3.25 a ——; Cornmeal, hds. 11.75 a 12.00, bls. 2.12½ a ——; *Flaxseed*, cask —— a ——; bu. ——; *Grain*, Wheat 1.00 a 1.20; Rye .60 a.65, Corn l. c. white, .44 a .45, l. c. yellow, .45 a .47, u. c. round, .48 a .50; Oats .33 a .40, Barley, Pa. .— a .—; do. East. .55 a .60; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .11, Virginia .10 a .12, Western .8 a .8½; *Hemp*, —— a 210; *Lard*, .5 a .8; *Oil*, linseed, .70 *a* 72; *Pork*, mess, 13.00 a 13.25, prime 11.50 a 12, cargo 10.00 a 10.50; *Rice*, 2.75 a 3.00; *Tobacco*, Kentucky .3½ a .6, Vir. .4½ a .7; *Wool*, common washed lb. .26 a .28, half blood 28. a .31, three quarters blood .31 a .32, full blood .34 a .38; unwashed, generally 10 cents less, according to quality.

GREEN-HOUSE PLANTS.

Orders for Green-House Plants from the magnificent collection of Messrs D. & C. Landreth, Philadelphia, received by the subscriber.

The plants are cultivated in pots, which therefore, admits of transporting at the present season with perfect safety. All orders will be carefully attended to,—packed in boxes and received by the steam-boat line.

The collection of the Messrs. Landreth's is not surpassed by any in the Union, and comprise the most beautiful, both native and exotic. None are sold by them unless in perfect health, and the prices at which they are offered very reasonable. Catalogues may be had *gratis* on application.

Also, a constant supply of the Messrs. Landreth's GARDEN SEEDS, grown and warranted by them.

The subscriber has likewise on hand his usual assortment of AGRICULTURAL IMPLEMENTS, such as Davis' Improved Patent Ploughs; Clery's Patent Improved Scotch Ploughs; Improved Bar Share Ploughs; Substratum do. and Shovel do.; Cultivators; Wheat Fans; Hay Rakes; Straw Cutters; Swingle Trees; Oil Stones; Patent Scythe Rifles, Cast Steel Axes, &c. &c. All the castings for the Davis' and other Ploughs sold by him, constantly on hand to supply the place of those worn out—but he does not furnish castings for making new ploughs.

JONATHAN S. EASTMAN,
No. 36 West Pratt street, Baltimore.

N. B. Wanted, immediately, two apprentices at the above business—one fourteen and the other sixteen years of age.
J. S. E.

ALMANAC.

1829. July.	Sun. Rises.	Sun. Sets.	Length of days.	Moon Rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 25	4 52	7 8	14 16	0 34
Sunday,........ 26	4 53	7 7	14 14	1 19
Monday,....... 27	4 54	7 6	14 12	2 8
Tuesday,...... 28	4 54	7 6	14 12	3 0
Wednesday,.. 29	4 55	7 5	14 10	3 54
Thursday,.... 30	4 56	7 4	14 8	sets.
Friday,......... 31	4 57	7 3	14 6	7 31

New Moon, 30th, 0 h. 32 m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Tobacco.—Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 5.00—red, 5.00 *a* 6.00—fine red, 7.00 *a* 8.00, for wrapping 5.00 *a* 10.00—Ohio, common, 5.00 *a* 8.50—good red 8.00 *a* 12.00—fine yellow 10.00 *a* 20.00—Rappahannock, 3.00 *a* 3.50—Kentucky, fine 4.00 *a* 5.00—wrapping, 4.50 *a* 7.00.

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AGRICULTURE.

(From Luccock's Essay on Wool.)

SHEEP AND WOOL.

On the Causes which act immediately upon the Fleece.

The naturalist has commonly classed the tribe of sheep by their fleece, the colour of the face and legs, by the structure of the ears, the horns, the tail and the rump. The grazier classes them precisely in the same manner, but instead of using the term species, he considers each class as a distinct "breed;" and in order to distinguish the varieties which he perceives, he calls them "cross breeds." The term, it must be confessed, arises naturally from his peculiar pursuits, and is by no means improper. The woolstapler, on the other hand, whose attention is confined chiefly to the fleece, has his peculiar arrangement; he distinguishes the hairy sheep, that which yields wool mingled with hair, and the pure wool-bearing animal. The first of these classes is evidently unconnected with his profession. In the coats of the two last he observes numberless dissimilarities, and arranges them according to the colour of the pile, the length of the staple, the soil upon which the fleece was produced, and the country where it was shorn. These are the principal points to which he attends. The last is of no consequence, except so far as it is connected with his knowledge of the district. It then serves to give him a general idea of the wool which happens to be the subject of discourse. Hence he most commonly connects with his description of the fleece, the name of the kingdom or the county where it was grown. He speaks of the wool of Spain, of Portugal, or of Germany; of the fleeces of Sussex, of Norfolk, of Shropshire, of Northumberland or of Scotland; and conveys to the ear of another stapler, by the epithet which he uses, an idea of the properties of the wool, as correct as the graziers do of sheep when they speak to each other of the Norfolk, the Ryeland, the Cheviot, or the Dishley breeds.

The division of fleeces into distinct classes, which the woolstapler so constantly adopts, and finds so useful in his business, is intimately connected with a fact in natural history, which has been long since established beyond all possibility of doubt; that the sheep is so constituted as to yield a fleece peculiarly appropriated to its distinct breed; and that at every annual return of the season for shearing, the same animal, under the same circumstances, will afford a similar kind of wool. If, therefore, the colour of the pile was once white, it will be found so again; if the staple was long, it will return in the same form: if it was coarse and hairy, it will be so still. A temporary and partial alteration may be produced in the fleece, by circumstances which we shall notice hereafter; but there is no reason to suppose that in any case the constitution of the animal is so changed, as to yield a kind of wool permanently different from that which it once afforded. The operation of slighter causes upon wool is constantly visible, and their effects have been noticed with some degree of precision; but the consequences which some of the more violent ones produce, such as affect very suddenly the temperature to which sheep are exposed, their nourishment and their health, have been suffered to pass unrecorded and perhaps too often unobserved. The degree of information we at present possess, induces us to attribute the slight variation, which we perceive in the fleeces of the same flock at different seasons of shearing them, not to the constitution of the animal, or to any change which takes place in its characteristic peculiarities, but to the influence of external circumstances, which are perpetually varying, and seldom, if ever, change in a similar manner, throughout two succeeding years. If the fact, that the fleeces which the sheep produces are similar to each other, be well established, and if it be not in the power of the less violent causes to produce a material difference in them; then nothing can more strongly evince how important it is for the wool grower to mark well the peculiarities of his flock; to place no dependence upon accidental and external circumstances for the production of good fleeces, but to rely entirely, and with confidence upon the properties with which nature has endowed his sheep.

The perpetuity of animal properties is scarcely any where more strikingly exhibited, than in the certainty and regularity with which the parent sheep convey to their offspring their own distinguishing characteristics. It is easy to trace the features, and to observe the disposition and the fleece of both its progenitors in the lamb, but so blended and softened as to produce a character distinctly its own. What an amazing field for the exercise of human genius and assiduity has the Great Disposer of nature opened by this arrangement! In this, as in most other instances, he has committed to man's own hands the management of his comforts. By this means the shepherd is enabled to combine the peculiarities of his flock with those of another, and to improve them both. It was upon this circumstance that the great Bakewell seized, and by means of it produced a race of sheep which will convey his name to future generations. His example diffused a spirit of experimental enterprise among his brethren, who have acted upon his ideas with the most happy success, and promises to extend its influence until the first of human arts has attained a degree of perfection which it is not possible to describe. It is upon this combination of the parents' properties in their offspring that we depend for the future improvement of the British fleece, and hope that those to whose superintendance it is entrusted, will not be satisfied until every individual quadruped, which produces wool, shall possess its full share of utility.

The improvement of wool, it should ever be recollected, consists in rendering it better adapted to manufactures. Alterations, which fail of this grand purpose, if produced by design, are trifling and contemptible. If they render it less susceptible of an application to useful purposes, they, and the abettors of them, deserve the severe reprehension of an enlightened agriculturist, who declares that "the debasement of the fleece is an act of treason against the state." But manufactures are so very changeable, and their demand for the raw material has been so uncertain in past ages, that the grazier ought to observe, with the keen eye of a statesman, the publick and the domestic occurrences of the moment, if he would produce from the backs of his sheep a commodity, which shall possess the highest intrinsic value, and be most assiduously sought after.

It would be folly to attempt the description of a sheep which would yield, in every country, the most valuable fleece. The circumstances of nations differ so widely from each other, and their manners, their clothing, and their manufactures are so very various, that the wool which is of the utmost value with one people, is very lightly esteemed amongst others. The agricultural system adopted in Bucharia, an extensive country in Asia, where sheep are cultivated with as much attention as in many parts of Europe, furnishes one of the most striking illustrations of this remark. In these western parts of the old world, the preference is given to white fleeces, and that for reasons which are deemed the most weighty; but there black sheep are more esteemed, because they furnish a kind of fur which is much worn, and sold for a great price among the neighbouring people. In Europe, we rear them on account of the carcass; but in that part of Asia they are kept for the sake of the skin. Here the older sheep are slaughtered, and the lambs are nourished to supply their places; but there the lambs are destroyed, and the ewes are preserved so long as they are productive. Among us a woolly coat is an object of the first importance, but the inhabitants of that region are solicitous that their flocks should be distinguished for their covering of soft and silky hair. So greatly do nations differ in their ideas of beauty, utility, and intrinsic value! In a country like England, therefore, whose woollen manufactures are established, and where many of the articles are destined to a foreign market, it behoves the inhabitants to observe the taste and the prejudices of every people, to suit their goods to the ideas of excellence which their customers entertain, and to push their trade to the utmost extent. While endeavouring to attain these grand objects, the manufacturer calls perpetually upon the wool grower to assist him by adopting those breeds of sheep which yield a fleece the best adapted to the purpose. He entreats him not to be so prejudiced to old families, and to ancient modes of management, like his ancestors, as to submit with reluctance to the constant and imperious influence of manufactures. He solicits him not to counteract the efforts of the loom, but to anticipate as much as possible its demands. He assures the breeders of sheep that their interests and his own run precisely in the same direction; that fabrics well supported and abundantly supplied with the raw material have the best chance of maintaining their ground, that then they afford the largest return for capital and labour and that the profits are always divided between them both. He entreats them to recollect that he has in no case deserted his coadjutors but with the utmost regret; that it has always been in consequence of circumstances, over which neither he nor they had any control, and that he has been the first to point out to them the new kind of wool which they ought to cultivate.

The causes which produce such an astonishing variety in fleeces, are in a great measure unknown to us; and when attributed to the constitution of the animal, it is traced to a source calculated to convince the world of our ignorance. But as the effects which proceed from the influences of blood are always uniform, it affords a basis upon which the sheep-master may found his conduct with the utmost confidence, and enables him to foretell the result of combinations in the breeding system with wonderful precision. Yet how it is that the colour of one fleece differs so totally from that of another; that one portion of an animal should produce an opaque and brittle hair, while another yields a transparent and elastic wool; why in some breeds the fleece should be confined to the carcass, and in others envelope almost the whole animal; why some families of sheep produce white wool, although their faces and legs are black; and whence it is that we never find the converse of this, a race of sheep with white faces and legs, producing black fleeces, we cannot tell. Our ignorance upon these subjects is universal and complete; and, perhaps, like many questions of a similar kind, which may be very easily asked, both with respect to sheep and quadrupeds of a different description, all inquiries instituted with a view of removing it, must long remain unanswered, notwithstanding the illustrations of the learned, and the practical observations of the most attentive grazier. The breed of spotted sheep, so common in the parks of our nobility, is very different from that which is intended when we speak of one with white faces and legs producing a black fleece. In the vast variety, which the characteristic marks of this tribe assume in their distribution over the body of the sheep, and in their dimensions, it is possible perhaps to find an individual whose fleece is black, and its face and limbs entirely colourless; yet we have no reason to think that there exists a breed of this description, a race which has communicated the peculiarity from the parents to the offspring through a number of succeeding generations.

There is no other breed of sheep in which nature distributes the colours so capriciously as in the spotted one. Most of these, which yield a fleece of a hue different from that of their extremities, exhibit a tendency to produce lambs of a darker cast than themselves; so that the flock, if left without the superintending care of its possessor, would in a few generations become entirely black. This remark has been made by some of the most intelligent breeders. It is deduced from their intimate knowledge of the animal, and from the care and watchfulness which they find absolutely necessary in order to preserve the beauteous whiteness of its fleece. Had they recollected the early history of the sheep, when it had departed but little from the undomesticated state, had the facts which have been mentioned in the former part of this section recurred to their memory, it is probable that the circumstance would not have surprised them.—They would have pronounced, with less hesitation, their opinion, "that nature in this instance was only endeavouring to return to that course from which the genius and industry of man had long compelled her to deviate." So pertinaciously does she seek this ancient path, as sometimes to produce even from unstained mates, in whose formation and fleeces culture has produced its most complete and boasted alterations, a sooty coloured lamb, as if to remind us that though constrained in these well bred flocks to wear a fashionable garb, she is ready on every relaxation of discipline to exchange it for a more loose and humble attire. The flocks, also, with black and dingy faces, in whose fleeces the tendency to degenerate has been most frequently noticed, and whence the conclusion was drawn that the original breeds were entirely of a dusky hue, are very widely scattered over the surface of the globe. Even in countries of the highest polish, and where the utmost attention has been given to their wool, they range almost without a variety, and evince how much may still be expected in the cultivation of an animal which both feeds and clothes us. The breed which is distinguished by the whiteness of its face, is confined within much narrower limits, abounds most in the richer districts, is generally found both at home and abroad to produce the longer wools, and even in countries where it ranges over wide extended hills, is commonly deemed the most tender animal.

But the peculiarities of blood are connected not only with the colour of the fleece; they have also a most material influence upon the structure of the pile. The filaments, which different breeds of sheep produce, are much more various in their nature than those who are not accustomed to observe them will readily conceive. When examined with the assistance of the microscope, the only mode of becoming acquainted with the minuter properties of wool, the filaments of white fleeces appear perfectly transparent and colourless; they bear a very great resemblance to shreds of nicely spun glass. Some very good judges of wool have spoken of it, as though they doubted the correctness of this description, and seem to consider it as an opaque, but polished substance; yet it appears to be indubitably transparent, by the effect which it produces upon the rays of light when thrown through it from a good mirror to the lens of the instrument. It refracts them agreeably to the laws of transparent substances, and precisely with the same appearances as the crystallization of salts by means of the solar microscope. But the hairy parts of the staple, when seen through similar instruments, appear perfectly opaque; where they change to wool, they become clear and transpicuous; another circumstance, if an additional one were wanting, to convince us that the coat of the sheep does not differ very essentially from that of other quadrupeds. The pile of a black sheep, although it seems to possess every quality of wool when examined by an unassisted eye, is, nevertheless, destitute of that clearness which the combination of lenses exhibits. Its opacity, however, is not always uniform. I have sometimes seen a black filament, studded with white transparent spots dispersed through its whole length; which shows, most evidently, that its opacity and colour is rather the effect of the arrangement in the particles composing the pile, than any particular secretion formed by the skin of the animal.—The surface of black filaments appears, so far as can be discerned, smooth and uniform, like that of whiter ones, and their outlines as well defined, so that the colour is probably owing to something distinct from that arrangement of surface which absorbs or dissipates the light. The transparency of wool, which has been found most perfect in the best kind of fleeces, seems to be connected with the breed of the sheep, and is therefore an object worthy of the wool grower's attention.

There are some other breeds of sheep which yield a wool remarkable for its brilliancy; although the pile be not perfectly opaque, yet the surface of it seems to possess a very fine polish, like that of a metalic needle; and the lustre with which it reflects the rays of light, has given it among workmen the appropriate appellation of silvery haired wool. This is most frequently found upon the backs of sheep whose pile is remarkably long and hairy. It is not so frequent in England as it formerly was, and the farmer will do well if he banish it entirely. There are still other breeds, which afford fleeces whose pile is observable for a wan and sickly appearance, destitute of lustre and almost without elasticity; and some, both in their general appearance and the structure of the filament, bear a resemblance to unwrought cotton. In the Vigonian wools we meet with a staple nearly opaque, but remarkable for its smooth and silky texture.

The particular shape of the filament is most probably determined by that of the pore in the skin, through which it is protruded. In some families of sheep we observe the pile perfectly round and even, like a very nicely drawn wire; and in others it is uniformly flat and smooth, like a small bar of finely polished steel. This difference is frequently discoverable by inspection alone, but becomes more obvious if one end of the filament be held fast while the other is rolled round its own axis betwixt the fingers. It then reflects the rays of light if it be flat in the same way that the metallic shreds, which we obtain from gold and silver lace, do when they are treated in a similar manner, and concerning whose shape we can have no reasonable doubt.—This variety of arrangement which we observe in the particles composing the filaments peculiar to different breeds of sheep, and the laws by which it is regulated, are subjects not entirely unworthy of their notice who have time and inclination to pursue them, nor of his whose object is to produce wool in its most perfect form.

(To be continued)

(From Bordley's Husbandry.)

SHEEP.

The universal food for sheep in England is, in *summer*, common grass and clover; in *winter*, turnips for winter feed, and from turnips to vetches in the spring: hay, only when turnips fail. Of *stock sheep*, 100 require 5 acres of turnips, and 15 acres of clover. Good inclosed pasture will carry six sheep to an acre. 19 An. 295. 298.—A ton of hay a day was eaten by 700 sheep; which gave to each 3 2 10 lb a day, and was rather scanty "Cabbages are better for sheep than turnips two to one."—After the sheep are a little accustomed to their stalls, they thrive well. They are there fed 3 or 4 times a day, and have clean litter. 18 An. 105. 111.—In America, plant a cabbage in the step between every two hills of maize, the partial shade may be favorable to them. It is said that cauliflowers succeed better when planted amongst maize, than when in a garden, *gooseberries* also require some shade. Thus they are raised without labour; for the maize must be horse hoed. What would be the difference between letting the plants grow into cabbages from the seeds, without removal, and transplanting as usual?

TURNIPS.

In Kent's Hints, page 128, is the following on turnips.—In crops they answer three great purposes; to *clean the ground: support live stock*, a vast deal: and *prepare for other crops*; particularly for barley and clover, or grass-seeds. The *turnip crop* is the Norfolkman's sheet anchor; and he spares it no pains. The stubble of wheat, barley, or oats, is preferred for bringing on turnips. They plough very shallow; so as to skim off the rough surface only, some time before Christmas. In the following *March* it is well harrowed (their soil is a sandy loam) and then is cross ploughed to its *full depth*. In *May*, it is ploughed again, the same depth: and if dry weather and the soil stiff, immediately *harrow* after this ploughing. By the *first of June*, it ought to be perfectly clean. Now, 10 good cart loads of *manure* are laid on an acre, regularly spread, and ploughed in quite *fresh*, half the depth of the other ploughing.—It thus is left till about the 21*st of June*; and then is well *harrowed*, to blend the soil and manure together.—It is then *ploughed* to its *full depth*, and harrowed, once only, the way it is ploughed.—The seed is then immediately sown, on the *fresh* earth;* *not even waiting for the ploughing a second ridge*. A quart of seed an acre is sown. The seed is *harrowed in* twice, the same way the ground was ploughed. The *harrow* is short tined, and the lighter the better.

The nicest part of the turnip husbandry now remains to be observed: It is *hoing;* without which *all* the former labour is *thrown away*.—When the plants cover *three inches* in diameter, *hoe* them with a 10 inch hoe; and set them at 15 inches apart; without regard to the apparent health in the choice of those left. About 10 or at most 14 days after the first hoing, the ground is *hoed* a second time, so as to *stir the mould* effectually between the plants, and to check weeds. About 14 to 20 days after the 29th September, the turnips are fit for consumption, and so to April, unless the frost injures them.—Where the land is *wet* the *whole* are *drawn*, and fed in cribs. On *light dry land*, every other ridge is drawn.

He adds, 20 acres of a good crop of turnips *fatten* 15 or 16 bullocks, and *support* 10 followers or store cattle for 25 weeks; or of sheep, as 8 to one bullock. But the greatest advantage is in *cleaning*, *meliorating* and *preparing* the soil for other crops.

To save turnips in the field, they sink some beds in the ground where they grew, about two feet deep, of a considerable width, and lay 5 or 6 layers of turnips in them, one upon another, with a little *fresh earth* between every two layers, and cover the top over with straw, to keep out the frost. Or pile them up in small stacks, with the greens outward, and a little clean straw between every two layers; and lastly cover or skreen them with wattles lined with straw.†

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* In Maryland, turnip seed is usually sown a full month later than this.

† At Wye, with intention to try a new mode, my turnips were sown in broad-cast, thick. A plough having a narrow fin without its mould board, was run through the young plants, carefully, for leaving them on a narrow slips of earth. Handhoes followed, working across

the rows, and cutting near a foot width of the plants quite up; the hoers stopping occasionally to thin the clusters of turnips left by the hoes. A double mould board plough afterwards run through the intervals, heaves up the earth on each side and leaves the plants on clean ridges. Advantageous as this proved, I could not procure it to be repeated more than once more, a few years afterwards. Overseers are as fixed to old habits as the negroes under them; and I was much abroad on other business. I have indeed always found the negroes better disposed to execute my designs, than the overseers, who invariably are attentive and ingenious in taking short cuts for sluring over all work, to soon get rid of it and go a frolicking. I usually sowed near the end of July though I felt disposed to break through the practice; and sow a *little later*, for saving them before they were old in growth when they incline to be open and spongy, and therefore do not keep so well as younger turnips, close and in full vigor. In that country turnips are but little hoed and that slovenly: and to thin the plants the country people think would be destroying what they had done. They count the turnips by the *number* of plants, rather than by the *quantity* of the roots.

Turnips in rows, having 12 or 14 inch intervals. *Every other row taken up* and saved, would leave intervals 24 to 28 inches wide. Cover the remaining turnips with long dung: then in November, before the frost sets in, dip deep a double mould board plough, and heave the earth on the turnips, to stand the winter. Make the experiment. Such a plough is highly valuable on many occasions. It especially saves 2 or 3 bouts in clearing out, when ploughing maize. Of *potatoes* every other row taken up would leave three feet intervals between the rows of remaining potatoes. The haulm cut off and laid on these potatoes, may then be covered by the earth heaped on them by a stout double mould board plough; for keeping this half of the crop through the winter. It may be first tried in a few rows.

POWER—DRAUGHT.

The 16 An 562, says *cars with one horse* are preferred; and that they carry 160 large bricks, of 14lb. equal to 2240lb. These cars are about 5 feet square, and 1 foot deep; containing 25 feet: 27 f. a cubic yard is a load of earth. The *wheels two feet* diameter, run *under* the car, as in Ireland.*

The 18 An. 179, says, one-horse carts prove much preferable for all works of husbandry: and the form of such a cart, *with an ox* in thills and gears, and bridled, is given. This cart is 5 feet long: 3 7-12 broad: 2 deep: equal to 36 cubic feet.

The strength of a common *man*, walking *horizontally*, with his body inclining forwards, is said to be equal to 27lb. If he walks backwards the force is said to be greater in pulling backward; and it is said to be known that a horse draws *horizontally* as much as seven men; that consequently his strength is equal to 189lb, when drawing *horizontally*. Yet in *ascending*, three men laden with 100lb, each, will go up a pretty steep hill with more ease and expedition, than a horse laden with 300lb.

I have often seen about a tun weight drawn, and sometimes up a trying hill as from Market street wharf, Philadelphia, to Front street, by *one horse in a dray* having wheels of three feet diameter. On level ground, with such low wheels, his whole power is exerted to advantage; *upward*, from the centre of the axis which is below his point of draught. Horizontal draught, has but 189lb. of power to be added to some portion of the horse's weight. But in drawing upward it is with an increased power. Contrary to common reasoning, a horse draws more in a dray having three feet wheels than in a cart having five feet wheels, or else I must strangely be mistaken in my judgment of what I have seen and concluded were *facts*. The line of draught, *from the axis* of a three feet wheel, is *elevated;* which gives the horse a *lifting* purchase, with the aid of his legs, and better foothold pressing more directly on the ground: but when the wheel is five feet high, the *draft* is in a line nearly horizontal, and the horse pulls to disadvantage *with a horizontal exertion of the footlock;* which is very inferior to the power exerted by the *foot and leg*, when drawing *upward* they press more *directly on the ground.*

SWAMPS.

I have read of a swamp, of which meadow could not be made; and, being a disagreeable object, large deep ditches were dug, and the earth thrown up into little islands; which were planted with willows, and formed beautiful clumps of trees, here and there; so that nothing was seen but these trees, and various peeps of water. The ditches answered for fishponds.

Lombardy poplar is planted about habitations in America for ornament: but an Italian gentleman says, in Italy it is sawed at mills whilst *green* into boards to 4 ½ to one inch thick, and into plank 2 to 3 inches thick; and is greatly applied to making packages for merchandize. Nails are not apt to draw in these packages, the boards whereof are thin; and the wood being tender is easily cut into thin boards with handsaws. In 20 years their trunks, he adds, grow to be 2 feet diameter and 30 long. Boxes of it made strong for the use of vineyards last there 30 or 40 years; which induces the expectation that they may last long in *fence-rails* or logs. As *fuel* he says it makes a much stronger fire than the willow. The weeping willow is a singular and valuable ornament. Of other willows and osiers, the best adapted to making baskets, hurdles, tool handles, &c. no husbandman ought to be without a permanent stock in full growth. For the more general, extensive and important purposes, the Larch (*Pinus Larix, Lin*) must have the first attention of landed men. See Doctor *Anderson's* 3d volume of Essays on Husbandry, for a full and satisfactory account of it, and of the extensive propagation of it in Scotland; with its useful and durable qualities; and its very quick growth, so much wanted in the oak.

Mr. Young speaks of fish-ponds, and of four ponds, an acre each, one above another, on a stream, which turned a mill below the ponds. 19 An. 400.

HORTICULTURE.

KITCHEN GARDEN—AUGUST.

Several crops are to be sowed this month for winter and the next spring and early summer crops; as cabbages, cauliflowers, onions, carrots, spinach, and some principal crops planted for late autumn and winter supplies. In this month, digging vacant ground is required for sowing and planting several full crops. All new planted articles must be watered, and diligent attention paid to the destruction of the weeds before they grow large, or come to seed.

Asparagus, which will be now all run to seed, must be kept clean from weeds, which is all the culture they will require till October or November, then to have their winter dressing.

Sow cauliflower-seed about the latter end of the month, to stand the winter, in frames, hand-glasses, and warm borders, for the early and general summer crop, next year; and for which remark the above time, for if the seed is sown earlier, they will button or run in winter; and if later, they will not attain due strength before that season. If the weather is dry, occasionally water them, and let them be shaded from the mid-day sun.

Earth up the former planted crops of celery, repeating it every week according as the plants advance in growth. Do it moderately on both sides the rows, but be careful not to clog up the hearts

Cucumbers in frames, &c. may now be fully exposed by removing the glasses. Picklers, or these in the open ground, will now be in full perfection. Gather those for pickling while young two or three times a week. While the weather continues hot, daily water the plants.

In dry weather hoe various crops in rows, to kill weeds, loosening the earth about, and drawing some of the stems of the plants, to encuurage their growth.

Sow cos, cabbage, Cilicia, and brown Dutch lettuces, in the beginning and middle of the month; and towards the latter end for successional crops the same autumn, and for winter supply, and to stand the winter for early spring and summer use. Plant and thin lettuces of former sowings a foot distance.

Onions being now full bulbed, and come to their mature growth, should be pulled up in dry weather, and spread in the full sun to dry and harden, for a week or a fortnight, frequently turning them to ripen and harden equally for keeping. Then clear them from the gross part of the stalks and leaves, bottom fibres, any loose outer skins, earth, &c. and then house them on a dry day.

Sow winter onions both of the common bulbing and Welsh kinds, for the main crops to stand the winter to draw young and green, some for use in that season, but principally for spring supply; and some of the common onions also to stand for early bulbing in summer. The common onion is mildest to eat; but more liable to be cut off by the frost than the Welch onion. This never bulbs, and is of a stronger hot taste than the other, but so hardy as to stand the severest frost.

Potatoes may now be dug up for use in larger supplies than last month, but principally only as wanted, for they will not yet keep good long, from their not having attained their full growth.

Sow an autumn crop of radishes, both of the common short top and salmon kind. Likewise turnip-radish, both of the small white, and the red, for autumn, and the principal crop of black Spanish for winter; and hoe the last sown to six inches distance.

Sow the prickly-seeded, or triangular-leaved spinach, for the main winter crop, and for next spring, that sort being the hardest to stand the winter. Sow some in the beginning, but none towards the latter end of the month, each in dry-lying rich ground exposed to the winter sun.

Hoe the last sowed turnips eight inches distant in the garden crop; but large sorts, in fields or extensive grounds, must be thinned ten or twelve inches or more.

Be particularly attentive to gather all seed that are ripe before they disseminate. Many sorts will now be in perfection; you must therefore cut or pull up the stalks, bearing the seed, and lay them in the sun to dry, &c. as directed in July.

SILK WORMS.

Jno. S. Skinner, Esq. *Georgia, 14th July*, 1828.

Dear Sir:—The silk worm eggs you had the politeness to send me last spring, were not altogether fortunate, some of them having hatched on their passage here, in consequence of the unseasonable warm weather which prevailed during that time, and the young worms having lost their lives, either from want of food or the rough handling of the mail carrier, and indeed some of them that hatched after they came to hand, perished for want of food, the severe frost which occurred about the time having killed all of the leaves of the mulberry tree, except a very few that were in sheltered places.

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* I directed a cart to be made on the principles of Sharp's wagons on rollers. The wheels of this cart, or rather the *rollers* were two feet diameter, and 16 inches tread, sawed out of oak. They performed admirably, except when running over old cornhills: they then jumped continually. With 4 oxen it carried 120 bushels of wheat, 7000lb. easily. The rollers were under the body; and this was nearly square with equal sides. Carts are used with *one ox*, instead of a horse.

Such destruction of vegetation by frost, I have never known before, for most of the corn in this state was cut down, and it was found necessary to plough up much of it and plant the ground anew. I am of opinion, therefore, that the experimental cultivators of the silk worm, should not yet be discouraged since it appears the worm was not borne harder on by the inclement spring than corn was, the most hardy vegetable we have of the annual tribe. During the progress of the worms that I was able to feed, their growth was not so rapid as I had expected; disease was not unfrequent, and some deaths occurred, doubtless owing to the variableness of the weather. I was from home for ten days before the worms commenced spinning, and until they were coming from out of their cocoons in the form of butterflies, soon after which they laid a full complement of eggs, which I had put away in a drawer of a table in my dwelling, and in a few days after, on examination of them, I found they were hatching, I then removed them to a place I thought would be a favourable one for their hatching, but from some cause which I cannot account for, not more than one tenth of them hatched, I have however thought the eggs may have been injured, by the common black fly, which seemed to feed on them in great numbers. The little worms the moment they escaped from their confinement, commenced their attacks on the mulberry leaves, with apparent greedy appetites, which they continued till they commenced spinning, with an increased consumption of the mulberry leaves, proportionate with their growth. This generation was almost wholly free from disease, and but one death occurred. I was from home for some days before, and during the time they were spinning, having left them in the care of a black man, who had the management of them from the time of their hatching, who informed me, they were much inclined to wander about the room in which they had been reared, in search of a favourable place to spin, and not more than three fourths of them enclosed themselves in cocoons, the residue of them spun their silk, (on faggots placed among them,) in the manner of spiders' webs. I would esteem it obliging in any of your correspondents, who is acquainted with the cultivation of the silk worm, if they will point out any way, by which the silk worm can be made to spin their silk in cocoon form, and also to say whether the silk spun in the manner of the spiders' web is of any value, and if so, how it should be prepared for market.

I have now I presume from worms of the second generation this season, about 200,000 eggs, which I have put away in the hope that I shall be able to keep them in good preservation till the next spring.

Our summers here, (say about latitude 33) is sufficiently long, to rear three generations of the silk worm in one season, and if we are to judge from the extent the figure has been carried in the cultivation of cotton, to the almost total ruin of the larger part of the best soil of this state, we may reasonably expect (if the silk worm is cultivated extensively here,) that three generations will be reared, if it should not be found that keeping the mulberry tree stript of its leaves is injurious to it.

The little experience that these worms have given me, (and this is all that I have in the cultivation of the silk worm,) has not prepared me to offer any positive opinion, whether extensive attention should be given to them in the southern states, I may however say that I am inclined to the opinion, that they may under judicious management, be found more productive of profit than any thing else, (except the sugar cane, south of latitude thirty three,) that can be extensively attended to. Should I have it in my power next year to carry my experiment farther, (and I feel much disposed to do so,) I will endeavour to give you an account of the result.

AGRICOLA.

PLUMS.

Mr. Editor,

I have thought that some remarks, additional to those which I made in your paper of last week, on this fine fruit, might have the effect of inducing those gentlemen practically acquainted with the subject, to give the public the details of their successful practice. My information is, for the most part, theoretical, though founded, in some degree, on observation. If, therefore, not entirely useless, it is much inferior to what they can communicate.

The mode pursued by your correspondent "H. B.", of burying the fruit that is punctured and falls, cannot be so efficacious as paving; for, in many instances, the inhumation, so far from being fatal, would only assist the insect's natural propensity to hide itself in the ground.

The plum tree is said to flourish in almost any soil where other fruit trees will grow. I have hardly ever seen a young and uninjured tree of that sort, whether in town or in the country, that was not healthy-looking and vigorous, although its fruit might never come to perfection. There is nothing in our climate or soil, therefore, to prevent its thriving; and all that remains for us, is to devise some means of protecting its fruit.

If I were making a collection of apricot, plum, and nectarine trees, (as I am, indeed,) whether in the country or in town, I should plant them near the house, for greater security; and if possible in the yard, that I might have a brick pavement under and around them. I should also place them much nearer together than trees stand in an orchard; that is, 12 or 10 feet, or even, in some cases, 8 or 6 feet; and, although I should endeavour to prevent them from growing very large, I would permit them to form tall stems. In such an arrangement, there would be several advantages. You might have a greater number and variety of trees in a smaller space; there would not be required so much paving; they would be more easily superintended, and would shelter each other from the excessive heat of the sun; and the fruit would not be so exposed to being pilfered.

Another method which I have begun to carry into effect, is to cultivate these sorts of fruit on *trellises*, or, as they are usually called *espaliers*, standing in the open field or garden, where they can be watched, and facing to the south. It is not of much importance, however, how they front, for the open trellis-work admits the air and light to penetrate and pass in every direction, and the sun shines upon it from all its aspects. In this particular, the simple espalier is preferable to the *wall*, which, in our climate, is generally too hot and close. These espaliers may be arranged in rows of any length, one behind the other, twenty or twenty-five feet apart; and the interval may be devoted to the raising of various vegetables. If any of your correspondents should desire it, I will hereafter give you the details of construction accompanied by a drawing. The espalier need not be confined to the fruits specified above; but will no doubt answer very well, in some places, for the peach, the pear, and even the fig. For the vine they are commonly used, and are the best way of cultivating grapes for the table.

The principal advantages of this mode are these: that it occupies less room; that you may pave along under the trees at less expense; that, as they are never suffered to grow higher than five or six feet, or seven or eight at the utmost, every part of them can be easily reached, to pluck off the fruit, to cut away dead and broken branches, to remove and destroy any insects that may fix upon them; and that they may be covered in the late frosts and cold nights of the spring. Trees of the kind of which we are now speaking, do not require protection in the winter; and hardly any fruit that does, is worth cultivating on a large scale: but there is much danger to be apprehended, even to the hardiest plants, from late frosts in the spring, when they are in blossom, or their fruit is tender, or their buds are just expanding; and a person who has not witnessed it, would be surprised to see how slight a protection will effectually secure them. A mat, thrown loosely over the top of the trellis, and hanging to the ground; or even leafed branches set up against the tree, will generally suffice. If you have water at a proper elevation, it is also very easy to irrigate trees or vines planted in this way.

For the culture and training of fruit trees on trellises, ample directions are given by Forsyth and McMahon, each of whose treatises every man should possess who wishes to have good fruit.

In selecting a site for an espalier orchard, a situation would be the best, I think, in which the trees should be exposed to the sun only until about three o'clock in the afternoon; for I am persuaded that many of the disasters that occur to our trees, are occasioned by the intensity of our summer suns.—This protection might be afforded by planting the trellis within the afternoon shade of a wood or a line of buildings; and, in some degree also, by giving it a proper front.

If these observations, sir, should be useful to any person who is anxious to be informed, I shall be much gratified. An Amateur merely.

TRANSPLANTING TREES.

Though the season for transplanting trees has elapsed, your paper of last week may become a source of injury, loss, and disappointment to some of your readers, when that season shall return. The extract from the New York American, if not very attentively read, will not correct, but confirm and strengthen the erroneous opinion, too prevalent among farmers, that when a tree is transplanted, not only its life, but its health and vigor may be preserved, with all its top, or head, whatever loss it sustains in its roots. Sir Henry Stuart, referred to in the extract, speaks of trees transplanted with *all* their roots retained. Being a gentleman of fortune, the expense of moving a valuable tree was not considered; the proper apparatus must be prepared, and the tree, with all its roots, must take the station his fancy points out. The roots being preserved, the top requires no diminution.

As trees ordinarily are transplanted in this vicinity, the price, the cost of moving them, is a primary concern. A tree is taken from the forest, it is brought to the destined spot, the ground prepared, and the tree is set for one shilling, and the labourer makes high wages, and seeks employ in thus transplanting trees! What is the consequence? what is the labour? Having broken the ground at the tree with his hoe, the axe is sturdily applied—every root of considerable size is cut off within a foot or two of the body, while a few smaller ones are left to sustain and nourish the whole tree. Not unfrequently, nine-tenths of the roots are left where the tree stood. Now I ask, can the remaining tenth part furnish a current of sap, sufficiently strong and active to spread over the whole surface, which all the roots did but supply as nature required? Can this tenth part perform, not only its own part, but also that of the other nine? It cannot. Let the whole top remain, and in this case there can be but feeble, very feeble foliage, and probably none. *The sap that rises will be dried up by the sun.*

Whatever theorists may allege to the contrary, my opinion is sustained by various indisputable facts. The vigorous, healthy apple tree, from which the whole top is removed for the insertion of grafts, frequently dies of plethora. The food is prepared and brought forward for the nourishment of all the natural branches—there are no mouths to drink or receive it. Here and there a little scion relishes and enjoys a very small quantity, the remainder stagnates—the stock is drowned, turns black, and perishes. This I have often seen. Experience has convinced observing men, that where scions are set in a vigorous tree of considerable size, the farmer should be three years in removing the natural branches. This reasoning is strictly applicable to the transplanted tree. The roots which take a new station, should not be taxed above their means. If half the roots are cut off, why oblige them to support more than half their branches? It appears to me rational to let roots and branches be proportioned, in the second position, as nature proportioned them in the first.

Having paid much attention to this interesting subject, I am satisfied there is little danger of removing too many branches from a tree transplanted, if depredation has been boldly made upon its roots. If it needs more receptacles for the sap furnished, it provides them without labour?

It is peculiarly gratifying to the observing traveller in this vicinity, to see the taste, the enterprise, liberality, and patriotism, which a few spirited and benevolent individuals have displayed, in lining so many of our streets and villages with double ranges of rich and well chosen forest trees.—But little exertion is now necessary, to render each of our public roads a delightful promenade in a very few years. When in future, the weary traveller; after being scorched and broiled in an open road, on a sultry summer day, shall realize the refreshing air of a long, smooth, and shady street, he will bless the memory of that publick benefactor, whose liberality provided such a prospect, and such an innocent luxury, for publick and private enjoyment. [*Lancaster Gaz.*

RURAL ECONOMY.

(From Bordley's Husbandry.)

DISTILLATION.

The *Dutch* method of preparing wash, for malt spirit, saves much trouble and procures a large quantity of spirit. It is the most profitable method, and reduces the two operations of *brewing and fermenting* into one. It is this:—In proportion to 10lb of malt in *fine* meal, and 3lb of common wheat meal, they add 2 gallons of *cold* water, stirring all well together: then add 5 gallons of water *boiling hot;* and again stir all together. When this is cold they add 2 ounces of *solid* yeast; and ferment it in a warm place, loosely covered.—In England, by drawing and mashing for spirit, as they do for beer, pumping into coolers, and running it into fermenting backs, and fermenting it, they have twice the labour, and lose much spirit, by leaving the gross bottoms out of the still, for fear of burning. Sibley's Hist. Miscel. pa. 352.

FRESHENING SALT PROVISIONS.

In my passage on the Chesapeake, I observed my skipper would sometimes slice salted barrel pork, and in a few minutes freshen the slices in a frying pan; and then boil them for his dinner. The pork slices were put in fresh, cold water, in a frying pan, and held over a fire till the water *began to simmer* (never suffering it to boil in the least.) This water was then thrown away, and other cold fresh water was put in a pot together with the slices of pork. They were then boiled till enough.—This was applied, in my family, to freshening salt fish: especially cod sounds; and it answered admirably. Sometimes they were so over freshed, that it was necessary to eat salt with them.

When your hens are near laying, mix a little nettle-seed with their food, and always feed your poultry at regular periods, which will cause them to be familiar. When you design to set a hen, never put more than twelve eggs under her.

INTERNAL IMPROVEMENT.

INLAND NAVIGATION.

Northern Section of the United States.

The plan and execution of the two canals of New York, and perhaps still more, the plan and very near advance to completion of the Welland canal in Upper Canada, have arrested not alone the attention of the people of Canada and the United States, but of Europe, to the natural and artificial navigation of the sea of Canada.

The St. Lawrence or drain of that inland sea, is a river, or more correctly a strait, entirely peculiar to itself in America, and having but one counterpart, that of the Marmora Black sea, and sea of Azoph. To reach this fresh-water inland sea by a canal route from the dawn of civilized settlement, engaged the minds of every man of deep reflection who traversed the intermediate space from the valley of the Hudson. The accomplishment of this daring design we have witnessed, by the opening of not one, but two chains of canal and river routes.—The Erie canal entering above, and the Champlain below the great rock shelf of Niagara.

As far as the mere practicability of forming canals from the Hudson into St. Lawrence basin, is concerned, the dispute is at rest; but there are other very weighty considerations connected with this great section of commercial intercommunication which has never yet received due attention. The day is approaching by not slow advance when the free navigation of the St. Lawrence will be demanded by the people of the northwestern sections of the United States, and demanded in a voice which neither the United States or British governments, will be able to disregard. However despotic or free in name, all governments are in fact the mere organs of public will, and when events or interests of sufficient magnitude, arouse any people to the discussion of their aggregate will, governments of whatever form must yield to moral and physical force combined. It is a question not yet decided, how far any nation having political authority over the territory along the banks of a natural water channel, is authorised by the laws of either nature or nations, to bar its free use to other nations, particularly in cases where absolutely requisite to international communication. To answer this question in favor of the right of stoppage, would be to say that Denmark has a right to close the Baltic, and Turkey a similar right to deny a passage through the Dardanelles and Thracian Bosphorus; and without any very violent stretch of concession, would grant to France and Great Britain, the right to close by convention between themselves the British channel.

It is no little curious, that the two most rising nations in the world are most deeply interested to settle this question in favor of unrestrained intercourse. It is a very great mistake to suppose, that the demand which Russia is now enforcing with 300,000 men, is one of recent date. When Peter I. ascended the throne in 1696, his attention was first turned towards the Turkish frontier, and his first naval operations were made to secure the mouth of the Don. The first Russian ship of war was built at Voronetz on the Don, with a view to facilitate the taking of Azoph, which fell into the hands of Peter in 1697, and Taiganroe, on the northern shore of the sea of Azoph was fixed upon as the future seat of Russian power. These great designs were made too soon; Turkey was still too comparatively powerful; Azoph was again lost to Russia, and Peter substituted the swamps of the Neva to the shores of the Azoph sea, and Petersburg rose as if by magic amid alternately frozen and flooded morasses in N. lat. 60. The narrow escape of the Czar and his army in 1711, on the banks of the Pruth, only suspended, however, a design which became the main spring of *Russian politics*, and now, 1828, a *sine qua non* of Russian politics is the free navigation of the Thracian Bosphorus, Gallipoly and Hellespont or Dardanelles. In such a contest, it would be as much folly to charge the emperor Nicholas with personal ambition, as it would to charge him with land-locking the Black sea, or to charge him with that increased population, science and commercial avidity which is carrying him with the double current of physical and moral power into the Mediterranean. It was a similar dispute which put Louisiana into the hands of the United States. The Spanish government when in full possession of the Mississippi, had as unequivocally a right to debar its use to other nations as Turkey can now have to shut the Euxine. The United States secured a natural right by peaceable negociation and 15 millions of dollars, in place of establishing the same right by 150 million of dollars and a war; whether a demand or precisely like principles, respecting the St. Lawrence will be settled with as little expenditure of blood and treasure, time will determine. Whatever may be the issue we shall in the present instance proceed to examine the relative commercial channels of the natural section before us, or the base of existing political subdivision.

On the side of the United State as early as 1827, two canals were in actual operation. Previous, however, to the completion of either, it became obvious to the authorities and people of the Canadas, that when open, the Erie canal in particular, would divert an immense mass of produce from the St. Lawrence channel to New York. With a view to obviate consequences of such a revolution, and with still more enlightened and liberal views, the Canada Land Company projected, and have in great part executed the Welland canal As this new chain of inland navigation is but little known in the United States, some descriptive detail is necessary.

Lakes Erie and Ontario are separated by a peninsula, extending with a length of 40 miles east and west, between the western extremity of the latter, and the south-eastern of the former, and with a mean width of 25 miles. Along the eastern border of this peninsula winds Niagara river, falling from lake to lake 334 feet. Three-fourths of the whole surface is a plain in part marshy, and spreading northward from, and very little elevated above lake Erie. The plain is terminated about six miles from lake Ontario by that rock ledge over which the waters of lake Erie precipitate, and form that sublime natural curiosity, the falls of Niagara. Between the summit level and the sourthern shore of lake Ontario, the ground falls rapidly, and leaves a narrow alluvial border along the lake, stretching from the mouth of Niagara river to Burlington Bay.

Grand or Ouse river of Upper Canada rises at N. lat 43 deg. 40 m. long. 3½ W. from Washington, in the country of the Six Nations of Indians, and flowing thence south 70 miles, enters Haldimand county, and turning to S. E. winds by a very tortuous channel but sluggish current into lake Erie, which it enters 40 miles directly west from the outlet of that lake, after an entire comparative course of 100 miles. This stream in the lower part of its channel forms a southernest termination to the peninsula we are describing.

Rising east from Grand river, at about 16 miles from lake Erie, the Welland or Chippewa river flows by a general course to the eastward, and falls into Niagara river immediately above the rapids which precede the falls. Similar to Grand river, the Welland is a very sluggish stream. In reality as has been already noticed, the whole plain above the ridge is an almost dead flat, having in no direction sufficient inclination to admit any great velocity of current in the streams.

The Welland canal commences in Port Mailland at the mouth of Grand river, and follows the channel of that stream one and two-fifths of a mile, and thence up Broad creek seventh eighths of a mile.

Here the artificial channel commences by a cut of 10 miles through Winfleet marsh. This extensive morass spreads between Grand and Welland river, elevated but from 10 to 16 feet above lake Erie. Entering Welland river and descending it 10 miles, the canal is then conducted through the summit ridge by a stupendous deep cut, only equalled in America by the Desague near Mexico. The level of Welland river preserved to lock No. 1, 4¼ miles from the deep cut. Thus far steam boats, by either Welland or Grand rivers are admitted. Approaching the brow of the mountain ridge another deep cut of one-fourth of a mile leads to the tremendous brow, down which in a mile and 11 16ths, nearly the whole difference of level between lake Erie and Ontario, is overcome by 17 locks of 100 by 22 feet. The locks westward of the mountain ridge are 125 by 40 feet. There are very few if any works of art yet constructed in America, more worthy of a visit than this precipice of locks which are placed along the declivity, winding from right to left, none nearer each other than 30 yards, in order to give room to intervening reservoirs. At the foot of this series, the canal is led along a ravine 2½ miles by 12 locks, to St. Catharines, having descended from the summit level 322 feet. From the latter point to lake Ontario 5 miles, the canal by four locks, reaches its northern termination in Port Dalhousie.

If we consider the colonial condition of Canada, the thinness of population and limited resources of the people of that country, it is impossible to repress our admiration of the splendid design and prompt execution of this truly great work. It will, when completed, admit the passage of the largest vessels which can navigate on lake Erie, and it is expected to be opened late in the present or early in the ensuing year.

The Canada Land Company has the immortal honor of planning and forming this connecting link in their chain of water intercommunication between the upper and lower sub-basins of the St. Lawrence. Never has any work more effectually answered its purposes than will the Welland canal. The largest vessels that can navigate lake Erie, and enter its shallow ports, are generally about from 50 to 90 tons, with a breadth of beam of 20, and keel of 90 feet. The objects which were to be obtained by the formation of the Welland canal, have already been stated, but there are other advantages secured to its projectors, or possessors, which cannot be overlooked, and one of the greatest arises from the prevailing winds on lake Erie, and from the peculiar manner by which that lake *debouches* into Niagara river. The winds throughout the year blow so generally down the lake as to demand for a voyage from Buffaloe to Detroit, from three to four or five times as many days as the reverse passage. Lake Erie narrowing also at its north-eastern extremity, and Niagara river turning nearly at right angles to the general course of the lake, forms a gorge into which ice is driven by the never tiring westerly and north-westerly winds. From these combined causes, the outlet of the Welland canal will be open from one to two months annually longer than will that of the Erie canal from Buffaloe and Black Rock.

Without indulging an illiberal spirit of national rivalry, it is obvious that nature itself points out the necessity of obviating by artificial means the very defective navigation of lake Erie. Except Detroit and Niagara rivers no one of the shore harbors of lake Erie, admits a safe and steady entrance of 7 feet; also along the United States shore, extend long lines of rock bound, and on the Canada side equally extended and dangerous reefs of sand. To these unchangeable impediments in the earth, may be added the perennial currents of air, to doom the navigation of this sheet of water to eternal danger, and diminutive tonnage. "*Rivers were made to supply canals with water*," said Brindley, and never was the sublime expression more applicable than along lake Erie. The same streams which deny entrance to large vessels from the lake, would afford an abundant supply of water to a canal, never certainly did more circumstances combine to excite to the performance of any other undertaking, than does to that of encircling lake Erie with a canal from Buffaloe to Detroit. It would more than complete the chain already in part executed in the Erie, and in progress in the Ohio canal; and the whole taken together, constitute one of the most useful and extensive lines of natural and artificial navigation, not only in existence, but which the earth admits to be put into existence.

The following table of stationary distances will at once enable the reader to perceive the facilities which nature itself presents to the advancement of the proposed work.

Buffaloe habour to Smoker's creek,	*miles.*	4
Cayuga creek,	9—	13
Two Sisters creek,	6—	19
Cattaraugus creek,	9—	28
Dunkirk harbour,	13—	41
Fredonia creek,	1—	42
Portland mouth of Chataque creek,	14—	56
Northern angle of Pennsylvania,	10—	66
Twenty Mile creek,	1—	67
Sixteen Mile creek,	6—	73
Twelve Mile creek,	5—	78
Erie town and harbour,	8—	86
Fairview and mouth of Walnut creek,	5—	91
Elk creek,	6—	97
Crooked creek,	5—	102
Northwest angle of Pennsylvania,	4—	106
Coneaught village and river	1—	107
Ashtabula village and river,	14—	121
New Market and mouth of Grand river,	27—	148
Creek,	9—	157
Cuyahoga river and town of Cleveland, where the Ohio canal debouches into lake Erie,	18—	175
Rocky river,	6—	181
Black river,	18—	199
Beaver river,	4—	203
Vermillion river,	5—	208
Old Woman's creek	10—	218
Huron river,	3—	221
Sandusky bay,	10—	231
Portage river,	20—	251
Toussaint river,	8—	259
Maumee river,	15—	274
Raisin river,	9—	283
Stoney creek,	5—	288
Huron river,	10—	298
Rouge river,	22—	320
Detroit,	3—	325

At the first blush, it will no doubt to many persons appear extravagant, to propose bordering a navigable lake of above 300 miles in length, with a canal; but if a careful comparison is made between the safety and regularity of transportation by such a canal, and the very uncertain and tedious navigation of the lake, a decision would at once be made in favor of the former. The same canal boat which would be loaded in the Ohio or Hudson, could without transhipment, be conveyed to the opposite extreme.

The most remarkable circumstance, however, in such a canal, is that it could be carried upwards of 300 miles on one level, if such a mode should be requisite; and in any manner of construction, would demand less lockage and be more secure of an uninterrupted supply of water, than any other canal line of equal length which can be traced in the United States.

Beside the Cuyahoga and Ohio canal, several other navigable streams issue from Ohio and Michigan, and flow into lake Erie, of which, Vermillion, Huron of Ohio, Sandusky, Maumee, Raisin, Huron of Michigan, and Riviere Rouge are considerable volumes of water.

In the very rapid advance of population, the almost naturally continuous navigable line by the Wabash and Maumee, will come forward and obtrude itself on public notice, much sooner than any person would now dare to anticipate. A single glance on a map of that part of the United States, will render demonstrative, how completely the Wabash and Maumee route would harmonize with the Ohio and Erie canals. But we must pause, the many national and individual benefits of the suggested improvements are so obvious, as to present themselves at once without a prompter. My next will be employed on a general view of the Canadian sea, and St. Lawrence river.

[Errata to Rafts in the Red and Atchafalaya rivers, column 2nd, page 149, for "*Proguy*," read *Progny*.]

LADIES' DEPARTMENT.

FEMALE EDUCATION.

In the "Toilet, or Ladies' Cabinet," published once a week at Providence, R. I., we have the following selection.

Female education is of immense importance, as connected with domestic life. It is at home where man generally passes the largest portion of his time, where he seeks a refuge from the vexations and embarrassments of business, an enchanting repose from exertion, a relaxation from care by the interchange of affection; where some of his finest sympathies, tastes, and moral and religious feelings are formed and nourished; where is the treasure of pure and disinterested love, such as is seldom found in the busy walks of a selfish and calculating world. Nothing can be more desirable than to make one's domestic abode the highest object of his attachment and satisfaction.

> Well ordered home, man's best delight to make,
> And by submissive wisdom, modest skill,
> With every gentle care-eluding art
> To raise her virtues, animate the bliss,
> And sweeten all the toils of human life—
> This be the female dignity and praise.

Neither rank nor splendid mansions, nor expensively furnished apartments, nor luxurious repasts can accomplish these actions. They are to be obtained only from the riches of elevated principles, from the nobility of virtue, from the splendor of religious and moral beauty, from the banquet of refined taste, affectionate deportment, and intellectual pleasures. Intelligence and piety throw the brightest sunshine over the dwellings of private life, and these are the results of female education.

Intelligence and animated discourse, eminently exalt the dignity, and multiply the charms of every female that can excel in them—

> It is a sacred and home-felt delight,
> A sober certainty of walking bliss.

She who can sustain an elevated course of conversation; whose mind soars above the trifles and common things of time and sense; who is distinguished for well digested opinions, sensible remarks, habits of thinking and observation, good judgment, and a well disciplined temper, is a perpetual source of blessings and exhiliration to all within her circle.—She will make home all that is desirable, so that none of her household will need or wish to seek elsewhere for happiness. They will be able "to drink waters out of their own cisterns, and running waters out of their own wells."

HAPPY PARENTAL DISCIPLINE.

The son of a minister, now living, had by some means excited the displeasure of his father. His father thought it right to be *reserved* for an hour or two; and when asked a question about the business of the day, he was very short in his answer to his son. An hour or more elapsed; the time was nearly arrived when the youth was to repeat his lessons He came into his father's study, and said "Papa, I cannot learn my lesson except you will forgive me; I think I shall never offend again." His father replied, "All I wish is to make you sensible of your fault; when you acknowledge it, you know all is easily reconciled with me." "Then, papa," says he, "give me the token of reconciliation, and seal it with a kiss." The hand was given, and the seal most heartily exchanged, on each side: "Now," exclaimed the dear boy, "I will learn Latin and Greek with any body," and fled to his little study. "Stop, stop," exclaimed his father, "have you not a Heavenly Father? If what you have done be evil, *He* is displeased, and you must apply to him for forgiveness." With tears starting in his eyes, he said, "Papa, *I went to him first:* I knew, except he was reconciled, I could do nothing," and with tears now fast rolling, he said, "I hope, I hope, He has forgiven me; and now I am happy." His father never had occasion to look at him with a shade of disapprobation from that time to his death.

From the Hesperus.

ORIGINAL EPIGRAM.

When *Harry* was *old*, to Maria he said,
"My dear, if you please, we will marry;"
But Maria replied with a toss of her head,
"I never will wed the *Old Harry*."
He waited till all her gay suitors were gone,
Then cried, "a fine dance they have led you;
The hand that I offer'd, you treated with scorn,
And now, the *Old Harry* won't wed *you*."

X. Y. G.

SPORTING OLIO.

SETTER DOGS.

[A valuable acquisition for the lovers of field sports, has been gained by the arrival of a brace of setter dogs, the most beautiful we have seen, sent a present to John McTavish, Esq. by the Marquess of Wellesley, K. B. Attracted by their fine appearance, and aware that the Irish Althæ dog stands unrivalled with European sportsmen, we inquired into the history of these, with a view to register the particulars under this head of the American Farmer, to enable the owners of their descendants to refer hereafter to an authentic account of their importation and breed. The following is the result of the inquiry—The dogs are of bright chesnut colour.]

Manor, July 25th, 1828.

Dear Sir—I have just received a letter from Sir Richard Hunter, respecting the dogs, an extract of which I annex It contains the information which you applied for last spring, and which, at that time, I had not in my power to supply.

Very respectfully.
JOHN McTAVISH.

J. S. Skinner, Esq.

Extract of a letter from Sir Richard Hunter, to Mr. McTavish.

London, June 5th, 1828.

The setter dog's name is "*Dash,*" he was 3 years old last May.

He is of Mr. Tomara's breed, who lives in the Wicklow Mountains. His sire was an English thorough bred setter, and his dam a beautiful white Irish one; no cross can be more perfect—they are well known in Ireland, by the appellation of *Tomara's breed.*

The female's name is "*Dido,*" she was 3 years old last October; she is one of Mr. La Touche's breed, and was bred in the county of Kildare—it is impossible to have higher blood—there is no cross in this breed, she is purely Irish; great care is taken by him that they do not breed in and in, by which the produce would degenerate—they are well known all over Ireland by the denomination of *the La Touche breed.*

(From late English Papers.)

Chess.—The long pending match between the London and Edinburgh chess clubs, is still going on. It is about four years since the match was begun, and four games have been played with equal success. The fifth is now playing, and the pieces are reduced to three, and the pawns to five on each side; but we understand that the London club have it in their power to take a bishop without any immediate loss to themselves. In this situation, it may be presumed that the fate of the game and match is no longer doubtful.

Extraordinary Leap.—Colonel Emmerick, a sportsman and a soldier, being pursued by a party of light horse, when going with despatches from his commander in chief, the late Duke of Brunswick, rather than surrender, leaped a precipice with his horse of thirty-six feet fall, without receiving any injury, and continued his route. In commemoration of this bold and gallant daring, his statue, on his steed, was erected on the spot, at Brucksel in Germany—a monument of his zeal and intrepidity.

Pedigrees of Thorough-bred Horses.

(Furnished for the "Sporting Olio" in the American Farmer, by the author of "*Annals of the Turf.*"

(*Continued from page* 143.)

106. Fitzpartner, sixteen hands and a quarter high, got by the noted horse Old Partner, his dam by the imported horse Aristotle, grandam by the noted horse Whittington, great grandam by Double Bean, out of an imported mare, the property of Col Eppes. David Clarkson.

Albemarle, Va., March, 1800.

107. Lexington, a fine bay, fifteen hands high, remarkable for his great strength. He was bred by Richard S. Taylor, of the county of King William. He was got by the celebrated horse old Wildair, formerly the property of Col. John Syme, of Hanover county; his dam by the celebrated horse Longsdale; his grandam by the famous horse Jolly Roger; his great grandam descended from the noted running horse Gift, which was imported to America some years past by the late Colonel Dangerfield, of New Kent county.

April 1st, 1800. Andrew Woodley.

108. Lamplighter, a beautiful bay, 15½ hands high, elegantly formed; was got by Hart's old imported horse Medley; his dam by Longsdale, out of Braxton's imported mare Kitty Fisher.

Paul Thilman.

Hanover Court House, Va., Feb. 1801.

109. Young Medley, a beautiful iron grey, near fifteen hands high, remarkable for his elegant form, great speed and strength. He was got by Bellair, (a son of old Medley,) his dam was got by the famous Pennsylvania Farmer, out of a full bred Partner mare. Thomas Wells.

Charlottesville, Va , April, 1801.

110. Hail Storm, a beautiful bay, upwards of sixteen hands high; ten years old last spring. He was got by the high blooded English horse Pantaloon, who was got by Matchem out of a high bred and celebrated running mare. Pantaloon was sire to Chanticleer's dam, and many fine racers. The dam of Hail-Storm was Wingyfeet, who was got by Jolly Roger, who was got by the imported Jolly Roger out of Mary Grey. Wingyfeet was out of Melpomene, who was got by Burwell's Traveller. Melpomene's dam was Virginia, got by old Mark Anthony on Polly Byrd, who was got by Aristotle out of young Bonny Lass, who was got by Jolly Roger out of old Bonny Lass, a fine English mare.

Francis H Dancey.

Charles City Court House, Va., Jan. 1802.

111. Gimcrack, a roan colour, was got by Hart's imported Medley, (the best blood in England,) his dam by Ariel, brother to old Partner; his grandam by Whittington; his great grandam by Dabster, out of Col. Anthony Thornton's celebrated roan mare, considered the first of her day in England.

F. G. Bacon.

Nottaway county, Va., March, 1802.

N. B. Gimcrack was a celebrated racer and foal getter.

112. Sans Culotte, a chestnut sorrel, 7 years old this spring, was got by old Celer, dam by the imported Medley; grandam a thorough bred Fearnought mare. Stephen Davis.

Charlotte county, Va , March, 1802.

N. B. Sans Culotte was bred by the hon. John Randolph, and was a very high formed horse and valuable foal getter.

113. Young Dare-Devil, five feet three inches high, five years old in May next; was got by the noted imported horse Dare-Devil, his dam by a son of old Partner, out of a mare which was got by an imported horse. John Clopton.

New Kent county, March, 1802.

114. Highflyer, late the property of Wm. Newson, Esq., purchased by James Barbour, Esq., at 1000*l.* He is of a beautiful form, bright bay, 5 feet three inches high, rising eight years old. He was got by Wildair, his dam by the celebrated old Yorick; grandam by Regulus, imported by Lord Dunmore; his great grandam by the imported horse Sterling; his g. g. grandam by old Janus; his g. g. g. grandam by Silver-Eye; his g. g. g. g. grandam by Spanco. David Clarkson.

Albemarle county, Va., March, 1802.

115. Wild Devil, a beautiful bay, 16 hands 2 inches high, an elegant form, strong and nervous, and very lengthy. He was by old Dare-Devil, his dam by Wildair, his grandam by Rockingham, his great grandam by Spanking Roger, out of a Jolly Roger. John Anderson.

Hanover Town, Jan 1803.

116. Mountain Leader, a beautiful chestnut sorrel, five feet two inches high; eight years old next spring. He was got by old Wildair; his dam a Mousetrap mare. Caleb Boush.

Chesterfield, Va., March 1803.

117. Thor, a fine bay, full 15½ hands high, of great strength and beauty, and rising six years old. He was got by old Diomed, his dam by old Wildair, his grandam by Clockfast, his great grandam by old Partner, his g. g. grandam by old Regulus, out of an imported mare. Philip Rogers.

Tuckahoe, near Richmond, Feb 1806.

118. Young Figure, a beautiful blood bay, 15 hands 3 inches high, remarkable for strength, acti-

vity and symmetry of form. He was got by the imported horse Highflyer, his dam by old Figure, his grandam by Camillus, his great grandam by Gen. Nelson's Ruckingham. C. Carrington.

Cumberland county, Va., March, 1799.

119. Fitz Medley, a beautiful dapple grey, upwards of fifteen hands high. He was got by the imported horse Medley, his dam by Dandridge's Fearnought; his grandam by Harris's Eclipse, out of a high bred Jolly Roger mare.

John Epperson.

Buckingham, Va., March, 1799.

120. Agricola, a fine black, five years old this spring; five feet five inches high. He was got by Highflyer; his dam by the imported horse Dove, on Emory's noted running mare in Maryland.

Reuben Short.

Chesterfield, Va., April, 1800.

THE FARMER.

Baltimore, Friday, August 1, 1828.

☞ How intelligible! how much to the point! how encouraging! how acceptable!

Sir—I have always remitted in advance of twelve months subscription for the American Farmer: your receipt 23d March, 1827, was for the 9th vol. I now inclose the note of the Office of Discount and Deposit, in Charleston, the 2d of October, 1827, Joseph Johnson, Prest. A. 125—$5 payable to A. Rose or order—in advance of vol. 10, which please acknowledge. I remain, sir, your obd't serv't,

JAMES SHOOLBRED.

Charleston, 16th July, 1828.

AMERICAN LITERARY, SCIENTIFIC AND MILITARY ACADEMY.

Middletown, Conn. June 12th, 1828.

The public are respectfully informed, that by a recent arrangement, the duties heretofore discharged by Capt. Fartridge, in conducting the discipline and instruction of the institution, have been in part assigned to others.

Capt. Partridge, as President, will retain the general supervision of the institution, and continue his regular courses of Lectures.

The government is vested in a Superintendent, and Board of Investigation, composed of the President and officers of the institution, to be guided by such rules and regulations as may be adopted by the Board of Trustees.

The Trustees will, at least once in each month, personally examine the situation and concerns of the institution; and strict attention will be paid as well to the moral and religious, as to the scientific and literary instruction of the Cadets.

A competent number of gentlemen, educated at the Academy, and prepared by the experience of several years as Professors in the various branches of education here taught, and by a familiar acquaintance with the peculiar mode of discipline and instruction here pursued, have been engaged, with the assistance of other able instructors, to take immediate charge of the different departments.

A junior department, for the younger members of the Academy, will be established, in which they will pursue their studies under the personal care and instruction of one or more instructors. In all other respects, they will enjoy the privileges and be subject to the discipline and duties of the older Cadets. This arrangement, without in any degree affecting the expediency of placing youths of that age in a primary school, as recommended in the last prospectus, will afford them the same advantages at this institution, while at the same time, they become familiarized with and prepared for the discipline and duties of the senior department.

The course of instruction will be full and thorough in all the branches, both of theoretical and practical Mathematics, Natural Philosophy, Civil Engineering; in the ancient and modern Languages and Literature, including Greek, Latin and French, Spanish and English; in Moral Philosophy, Chemistry, Botany, and Mineralogy; in Military Science, including Gunnery, Tactics, Military History and Fortifications; also, Fencing and Penmanship. The discipline and exercise will be military, and will tend to produce physical and mental vigor, and promptitude and regularity in every department of academic duty. The hours allotted to this exercise, will be those only that are usually spent in idleness or amusements too often useless and frivolous.

The Academic expenses, including tuition in each or all of the above mentioned branches of education, board, washing, room rent, fuel, candles, use of arms, accoutrements, and the requisite instruments for practical operations, will be two hundred and seventy-five dollars a year.

Clothing, books, stationary, furniture for rooms, including bedding, will be furnished on the lowest terms, to those who may be desirous of obtaining them here. The quantity, as far as practicable, will be limited by the rules heretofore established. Incidental expenses, which, from their nature, cannot be specified, will, in the absence of particular directions, be regulated by the Superintendent. To enable him to do this, no money must be furnished to a Cadet, except by the Superintendent or his order.

No debts contracted by any Cadet without the permission of the Superintendent in writing, will be paid.

It is expected that provision will be made for the expenses of each Cadet, at least six months in advance.

This arrangement will go into operation on the first day of September next. Being the result of experience, and considered as an improvement calculated to relieve the hitherto arduous duties of Capt. Partridge, it will, it is trusted, be found in its operations, highly beneficial. Those who have placed, or may previous to that time, place their sons or wards here, will, if they prefer, have their bills for instruction and expenses, made according to the rules stated in the last prospectus, instead of the gross sum of two hundred and seventy-five dollars. After September first, all communications will be addressed to

V. B. HORTON, *Superintendent.*

It is deemed superfluous to descant upon the merits of the system of discipline and instruction adopted in this institution. The object is, to improve the existing systems of education, principally in the following particulars, to wit:

1st. To adapt the course of duty to the intended pursuits in the life of the student.

2d. To advance his standing in the Academy, according to his proficiency in his studies.

3d. To reduce the time usually devoted to the study of the ancient Languages, excepting in cases in which they may be useful, considered in reference to the intended pursuits in the life of the student.

4th. To embrace the French and Spanish languages in the regular course of instruction.

5th. To adopt as part of the regular course, in addition to the sciences usually taught, a general course of practical Mathematics; Civil Engineering, particularly as applied to the construction of roads, rail-rays and canals; Topography and Military Science.

6th. To teach, as a part of the regular course, but without encroaching on the time appropriated to study, military exercise, fencing, and the use of arms.

7th. To combine the cultivation of the mental and physical powers in such a manner as shall promote the full development of the faculties of the body, with soundness of health and constitution, and thus enable the individual to exert and sustain the habitual exercise of the highest energies of which his mind is capable.

The high degree of approbation of this system, which has been manifested by the American people, while it affords evidence of their desire to encourage useful improvements in education, and of their patriotism, authorizes us to hope that the liberal patronage which the institution has hitherto received, will not be withdrawn so long as it shall continue to be merited.

GEORGE W. STANLEY,
JOHN ALSOP,
V. HUBBARD,
NATHAN STARR,
WM. L. STORRS,
SAMUEL D. HUBBARD,
} *Trustees.*

The above prospectus is issued under an arrangement entered into between me and the Trustees, and with my concurrence and approbation.

A. PARTRIDGE.

MANUFACTORY OF AGRICULTURAL IMPLEMENTS.

The subscriber is just finishing a quantity of Wheat Fans, which he is sure will give satisfaction to the purchasers, and will be warranted superior. Also, on hand, a full assortment of Davis' Improved Patent Ploughs, of wrought and cast Shares; likewise of the Improved Barshare Ploughs; Brown's Vertical Wool Spinners; Patent Cylindrical Straw Cutters, and most other Implements of husbandry, on hand as usual.

JONATHAN S. EASTMAN,
No. 36, Pratt-st. Baltimore.

N. B. For sale, a quantity of Turnip and Millet Seed, which will be warranted of good quality, and at low prices. *July 18.*

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward I. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.—Scrubs, $3.00 a 6.00—ordinary, 2.00 a 3.00—red, 3.00 a 5.00—fine red, 5.00 a 7.00—wrapping, 6.00 a 10.00—Ohio ordinary, 3 00 a 4.00—good red spangled, 5.00 a 6.00—yellow, 6.00 a 9.00—fine yellow, 10.00 a 20.00—Virginia, 2.50 a 8.00—Rapahannock 2.75 a 3.50 Kentucky, 3.00 a 5.00.

Flour—white wheat family, $6.00 a 6.50—superfine Howard-street, 4.87½ a 5.00; city mills, 4.87; Susquehanna, 4.75—Corn Meal, per bbl. 2.50—Grain, best red wheat, .95 a 1.00—best white wheat, 1.00 a 1.10—ordinary to good, .80 a .90—Corn, .32 a .34—Rye, .45—Oats, .22 a .24—Beans, 1.50—Peas, .60 a .75—Clover seed, 3.50 a 3.75—Timothy, 1.50 a 2.25—Orchard Grass Seed, 2.25 a 3—Herd's 1 00 a 1.50—Lucerne 37½ a .50 pr. lb.—Barley, .60 a 62—Flaxseed, .75 a .80—Cotton, Va. .9 a .11—Lou. .13 a .14—Alabama, .11 a .12—Mississippi .10 a .13—North Carolina, .10 a .11—Georgia, .9 a .10½—Whiskey, hhds. 1st proof, 20½ a .21—bbls. .22½—Wool, common, unwashed, lb., .15 a .16—washed, .18 a .20—crossed, .20 a .22—three-quarter, .25 a .30—full do. .30 a .50, accord'g to qual.—Hemp, Russia, ton, $220—Country, dew-rotted, ton, 136 a 140—water-rotted, 170 a 190—Fish, Shad, Susquehanna, No. 1, bbl. 5 75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 a 6.50—Herrings, No. 1, bbl. 2.87½ a 3.00; No. 2, 2.25 a 2.50—Mackerel, No. 1, 6.25 a 6.50; No. 2, 6.00; No. 3, 3.50 a 3.75—Bacon, hams, Balt. cured, .11 a 12½; do. E. Shore, .14—hog round, cured, .8 a .9—Feathers, .26 a .28—Plaster Paris, cargo price per ton, $3.37½ a 3.50—ground, 1.25 bbl.

Marketing—Butter, per lb. .12½ a 25; Eggs, dozen, .15; Potatoes, bush. .75; Chickens, dozen, 2.50 a 3.00; Beef prime pieces, lb. .8 a .10; Veal, .8; Mutton, .6¼ a .7; young Ducks, doz. 2.50; young Lambs, dressed, 1.75; Pigs, do. .75 a 87½; prime Beef on the hoof, 5.50 a 6.00; Sausages, per lb. .8 a .10; Soft Crabs, doz. 1.50; Hard do. .12½ a. 18¾; Peaches, 1.50 per peck; Pears, .50 a .75 per peck; Apples, .12 a .25 per peck; green Corn, .10 per dozen.

Hay, per ton, $9.00; Rye Straw, 6.00; Cut Grass, per bundle, .10 a .12½.

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Sheep and Wool, Extracts from Luccock's Essay on Wool, On the Causes which act immediately on the Fleece—Food for Sheep—On the Cultivation and Preservation of Turnips—Power of Draught on Wagons and Carts—Swamps—Kitchen Garden, for August—Silk Worms in Georgia—On the Culture and Preservation of the Fruit of Plums and other Fruit Trees—Transplanting Trees—Dutch Method of Distillation—Freshening Salt Provision—Poultry—Inland Navigation on the Northern Section of the United States—Female Education—Happy Parental Discipline—*Poetry*, Original Epigram—Irish Setter Dogs, presented to Mr. McTavish—Scraps from late English papers—Pedigrees of Thorough bred Horses, continued—Editorial—Advertisements, Mr. Partridge's Academy—Prices Current of Country Produce and Marketting.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market-sts.

AGRICULTURE.

A DISSERTATION.

On the use and the results of two remedies tried as preventives, one, for the disease of the aqueous cachexy, known under the name of Rot, (pourriture.) and the other, for the disease of the blood, by the Marquis of Sainte Pere, *a member of the society for the improvement of wool.*

(*Translated from the French, for the American Farmer.*)

The concern which the members of the society for the improvement of wool, have in the propagation of the most valuable races of sheep having necessarily for its object the preservation of those useful animals in respect to their health, and to the treatment of those diseases about which the veterinary science has been until now almost unavailing; I considered it as a duty to yield to the desire which many of the members have expressed to me that I should communicate to the society some particulars, about two experiments which I tried with success. Then I will presently give an account of the means of which I made use to preserve sheep from two diseases which are their plague. One, the *aqueous cachexy* (the rot;) the other, the disease *of the blood.* I will also mention the results that followed. Those results already satisfactory, will recommend themselves much more when experiments, repeated and practised with care, shall have produced, as I hope a just appreciation of their advantages.

I shall begin by the first of those two diseases which affect, every year, entire flocks in moist countries, for which, however, sheep are of so great a value, as much for the quality of their dung, so well adapted to the cool nature of land, as because they would be the element of the greatest products which one could reap from those moist grounds, if the immense losses caused by *aqueous cachexy* did not take away with them the greater part, not to say all the profits of the flock.

All agriculturists are unanimous on the great advantages which agriculture, chiefly in respect to sheep, might obtain from the use of salt in the nourishment of those animals. For the disease of cachexy particularly, all the veterinary surgeons prescribe the use of salt mixed in the provender of oats, barley, or rye, with which sheep are supplied. But we all know that the high price of salt forces the husbandman to limit its use to a very few doses, and that, in very moist countries where salt ought to be, as a medicament, a part of the daily nourishment of sheep, the expense becomes so heavy, that the husbandmen find themselves constrained to give it over.

There is, however, a much more economical, and also more easy way of supplying with salt an entire flock. It consists in hanging up in sheep folds, either to the posts which are almost always there, or even to the walls, many stones or pieces of the sulphate of soda. Thus the sheep finding them, greedily lick them up, and by that means exempt their managers from the care of giving them salt with more expense and especially more trouble.

The sulphate of soda is besides preferable to the muriate of soda, (sea salt, *selmarin,*) in the case of which I am speaking, as I shall presently explain.

The sulphates in general are combinations of sulphuric acid, (produced by the combustions of sulphur and saltpetre) with any basis whatsoever.

The sulphuric acid combined with soda produces then the sulphate of soda, which generally is a purging salt: it is the glauber salt. It irritates slightly the coats of the stomach and of the intestines, and gives tune to the former.

In that which is made in the manufactories and calcinated, there constantly remains a small quantity of oxyde of iron and sulphate of iron, which increases still more its tonic action on sheep, which the veterinary surgeons even think they can cure from the incipient rottenness, by administering to them the sulphate of iron in small doses.

The sulphate which is found until now in commerce, being obtained by crystallization, is separated from the oxyde of iron, and in a great part from the sulphate of iron; its action is then much less tonic than that of the sulphate of soda, or glauber salt, which I speak of. It would be also less easy to give it to cattle, unless it is inclosed in satchels; but they will lick it up less directly, and consequently with less benefit than the stones or pieces of which I have spoken, which even they nibble often by small bits, as one would eat sugar.

The sea-salt, on the contrary, is a simple stimulant, not tonic, and it excites animals to drink without strengthening them, whilst the operation of the sulphate of soda is to give also a tone to the animal; and what animal wants it more than sheep.

It has been very difficult until now to find the sulphate of soda in commerce, being that they are obliged in the manufactories to convert it into soda, and that they could not sell it on account of the duties on salt. But we can hope in this moment that it will soon be possible to get it from manufacturers, because they are about to obtain leave to sell it without being obliged to convert it into soda.

After such an observation, which was necessary, I return to the results of the experiment which I before announced.

A friend of mine having bought from me a small flock of merinoes, which he intended to send to a farm situated in Sologne, I advised him to begin, as soon as his flock should have arrived there, to try the pieces of sulphate of soda suspended in the sheep folds, and he willingly followed this advice, by which he was much benefited for several years; but as he died, I have since been unable to know either what had become of the flock, or whether they have continued that experiment which many years of success, however, recommend enough to induce me to bring it without hesitation to the understanding and remark of agriculturists, proprietors of valuable sheep, who have, perhaps, to fear for their flocks, the disease of rot.

The other experiment of which it remains to me to speak, is relative to the disease of *the blood,* or the *blood of the spleen.*

A particular circumstance which it is useless to detail here, having made me perceive that in the disengagement of chlorine (oxygenated muriatic acid gas,) from the disinfecting apparatus of Guyton Morveau, a powerful exciting effect upon the circulation of the mass of blood was produced, the idea immediately suggested itself to me to try the experiment on the sheep of my flock, which first should be afflicted with the disease of the blood; for scarcely a year passed that I did not lose a considerable number by this disorder. For that purpose, I had made a large apparatus, the bottle of which was six inches in diameter, and which contained several pints, intending to use it, in case of success, for the purpose of administering the oxygenated gas on a large scale, into my sheep-folds.*

I perceived very soon the happy results of this gas. A few days after my return to the country (in the month of April) my shepherd came and warned me in the morning that a sheep had been attacked with the disease of the blood, that he had bled it, but that the blood had scarcely flowed, and the animal was lying upon the ground almost lifeless. I ran to the sheep-fold furnished with my apparatus. Having first convinced myself that the animal still breathed, I put my bottle near its nostril, and let the gas escape for about one minute. At the end of that time, the animal began to move its head, as if something disturbed it: I reiterated the emission of the gas, and an instant after, the animal began to sneeze several times. I left it in that state for some minutes; afterwards, I made him breathe the gas again for two minutes more, holding the bottle, however, a little farther from it.

Five minutes after, the animal having sneezed very much again, recovered motion a little, and tried, but in vain, to get up; which induced me to put it upon its feet. It stood at first tottering, but having held it up and then pushed it gently forward, holding it in balance whilst the gas continued to disengage itself around it, it at last made a few steps and steadied itself upon its feet without assistance. From that moment, being certain that he was alive, I closed my apparatus, and left the animal quietly to itself in the sheep-fold where it was alone. I went an hour after to see it again, and having found it quite well and walking easily enough I had a handful of after grass given him, which it eat immediately, for its recovery was complete, and the day following it went in the flock again.

After having obtained from a first essay so satisfactory a success, I thought of making use of the chlorine for all my flock, as a preservative against the disease of the blood. It appeared to me that the second trial might be decisive at that epoch of spring, where the change of nourishment from hay to grass, and the sharpness of the herbs, have so much influence on the health of sheep, which in pastures a little nourishing, take from that moment the principle which unfolds in them, sometime after, the disease of the blood.

Sheep is the weakest animal, and in which the fibres have less strength, and the blood circulates with more difficulty and slowness; which explains the tendency of blood to become thick, and afterwards to corrupt and immediately gangrene, which explains also the readiness with which it is struck with sudden death, by the disease of the blood. Then I had reason to hope that the oxygen gas administered at that epoch so decisive for the health of sheep, might advantageously struggle with all the circumstances which could concur to aggravate the physical dispositions that, in sheep, have a tendency to the disease of the blood, since experience had already proved to me that the remedy operated, (for I could not explain in any other way the effect produced by it,) in exciting the circulation in the mass of the blood, and I inferred that in preventing the thickening of the blood by the use of the oxygen gas, administered in the morning and evening, or at least once, in making the open bottle of the apparatus circulate in the sheep-folds in the middle of the flock, the animals would be preserved from the disease, during the epoch when they should be folded, and when it is difficult to make use of such a remedy, unless by making them return into the sheep-folds.

That has been also fully confirmed by experience. For more than ten years, at the end of April, and until the flock is folded, I cause my apparatus to be opened into my sheep-folds at least once a day, in the morning, for two, three, and four minutes, according to the extent of the sheep-folds within which the shepherd goes round, thus making the gas circulate every where; and since I have made use of this means, I have never lost more sheep by the disease of the blood, or if some only have been struck during the heat of summer, a slight bleeding has been sufficient to cure them, whilst before, notwithstanding reiterated bleedings, the sheep which were infected perished.

I am also to say here that the same remedy, used as curative, and applied to a sheep which was labouring under the disease called by shepherds the *stiffness, (le roide,)* and which seems to be a nervous disease caused by the blood, has likewise succeeded in curing the animal; but as I have had only one occasion to try it, I cannot but recommend it to new experiments.

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* This apparatus being sold in Paris, we intend to buy some bottles for experiments.—*Editor Am. Far.*

Without wishing to make of this remedy an universal panacea for the diseases of sheep, however, as I am convinced that the most part of their diseases have their principle in the very little force of the circulation of the blood, I invite agriculturists, who will make use of the apparatus of the oxygen gas, to observe (in the same time that they will verify its effects as a preservative against the disease of the blood,) whether they shall not obtain some advantageous results from it as a preservative against another disease much more fatal to flocks, because it is more general, particularly in merinoes: I allude here to the disease of giddiness (*tournis ou tournoiement*,) which destroys so many lambs.

It is for having observed that since I have made use for my flock of the preparation of the oxygen gas, I seldom have lambs afflicted with the disease of dizziness, that I think it is convenient to call the attention of the proprietors of flocks to a result, which, if it is not due to chance, should be so fortunate, since all the remedies known until now, without excepting the operation of trepanning, have all been ineffectual against this disease; and if I do not expose with more assurance the fact which I observed, it is because the disease of dizziness can also result from some circumstances peculiar to certain localities, or even to the situation and management of the sheep folds. An isolated fact could not be presented with the same confidence as if it had been verified in different circumstances, and in several flocks. For besides, it is not impossible to explain how the oxygen gas could act with more or less success to prevent the effects of the disease of dizziness, at least I think so, and I intend to try it.

Indeed, if it is acknowledged that the blood of sheep, circulating with little energy, easily becomes thick and also corrupted, may it not be possible that the formation in the brain of the lamb, either of the hydatid, or of a pellicle or satchel, containing a great number of worms might result from some sanguineous secretions, which, corrupting in the brain, might produce those worms. In this case, it seems to me that a greater energy in the circulation of the blood in the veins of the brain, can alone prevent those putrid secretions; and if the oxygen gas, merely inhaled by the sheep, has a powerful effect on the inert mass of its blood, one cannot then despair of the good effect of this gas in the case of the disorder spoken of.

Perhaps even the chlorine has a direct influence on those animalculæ, when, after having passed by respiration into the lungs of the animal, it has insinuated itself into the mass of the blood, and has been brought by circulation to the brain, where its contact can by its acidity alone, strike such feeble animalculæ, particularly at the moment of their birth.

On the other hand, the chlorine in acting by absorption and destroying thus the miasma contained in the air, this air arrives then more pure, light and vital, into the lungs of the animal, could it not thus give more tone to its organs? Then if this vital air has the power of strengthening the organs, why could it not operate in that manner, on those of the brain, which are so delicate? Now, in strengthening those organs, it necessarily maintains in it a more active circulation of the blood, and in this case as well as in the precedent, the chlorine seems to be applicable with some probability of success.

Besides, I am far from asserting, and I dare to present this means only as a supposition which may be admitted, but the merit of which will be proved only by experience. It seems to me, however, sufficient, that its effects may be contested neither by reason nor by theory, that one may venture at least to observe it, when particularly the matter is a disorder for which an effectual remedy has not yet been found. For, I repeat, the operation of trepanning cannot be presented as such a cure, since it only succeeds in a circumstance peculiar, and so extraordinary (at least I have reason to think so, after some remarks made upon fifty sheep afflicted with dizziness, and one of which alone has escaped by such an operation,) that I consider it more injurious than useful, because it hinders perhaps, that other more efficacious means should be sought. Besides, for a disease of that kind, the cause of which is yet unknown, it is better to try to prevent it than to have to cure it.*

I must express, in concluding, my desire of seeing those who employ themselves with care and talent of observation which belongs to them in the management of sheep, would be willing to observe the results which they will obtain by making use of the two remedies spoken of. For, it is above all in the art of curing the diseases which are the most injurious to sheep, and particularly to merinoes, that a great many things remain still to be tried and discovered; and I repeat it, the researches and observations of the proprietors of flocks, and of the men fond of the veterinary science, must have such an object.

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* A proprietor of a flock of 900 merinoes, having changed the epoch of yeaning of his sheep, observed that the loss occasioned by the disease of dizziness was more considerable among the lambs born in May than in those born in December. We have remarked a result nearly similar in our own flock.

ON FEEDING CATTLE.

(Continued from p. 157.)

	Composition of Summer Food. In 1 lb. weight of Green Herbage.									Composition of Winter Food. 1 lb. weight of Hay, or dry Herbage.								
	Water.			Dry Fibre.			Nutritive Matter.			Water.			Dry Fibre.			Nutritive Matter.		
	oz.	dr.	qr.	oz.	dr.	qr.	oz.	dr.	qr.	oz.	dr.	qr.	oz.	dr.	qr.	oz.	dr.	qr.
Anthoxanthum odoratum, Sweet-scented vernal grass,	11	6	3	4	1	1	0	8	0	0	0	0	15	0	2	0	15	2
Dactylis glomerata, Round-headed Cocksfoot grass,	8	14	0	6	11	2	0	6	2	0	0	0	14	10	3	1	5	1
Alopecurus pratensis, Meadow Foxtail grass,	11	3	0	4	2	2	0	10	2	0	0	0	13	0	1	2	3	3
Poa trivialis, Common Meadow grass,	11	3	1	4	4	3	0	8	0	0	0	0	14	5	2	1	10	2
Festuca pratensis, Meadow Fescue grass,	8	6	0	7	2	2	0	7	2	0	0	0	13	10	0	2	5	3
Synosurus cristatus, Crested Dogstail grass,	11	3	1	4	3	0	0	10	0	0	0	0	13	15	0	2	1	0
Festuca duriuscula, Hard Fescue grass,	8	13	0	6	14	0	0	5	0	0	0	0	14	0	0	2	0	0
Holcus avenaceus, Tall oat-like soft grass,	9	11	0	6	0	0	0	5	0	0	0	0	14	5	2	1	10	2
Bromus mollis, Soft Brome grass,	No summer herbage afforded by this bad grass.									0	0	0	14	8	0	1	3	0
Avena flavescens, Golden Oat grass,	10	7	0	5	4	0	0	5	0	0	0	0	13	3	0	2	13	0
Holcus lanatus, Woolly soft grass, Yorkshire fog,	10	13	0	4	13	0	0	8	0	0	0	0	3	11	0	2	5	0
Phleum pratense, Meadow Catstail, Timothy,	10	0	0	5	6	0	0	10	0	0	0	0	12	14	0	3	2	0
Lolium Perenne, Perennial Rye grass,	9	4	0	6	3	0	0	3	0	0	0	0	14	8	3	1	7	1
Trifolium pratense *perenne*, Perennial Red Clover,	11	0	0	4	6	0	0	10	0	0	0	0	13	11	2	2	4	2
Trifolium repens, Creeping White Clover,	11	8	0	4	0	0	0	3	0	0	0	0	14	3	3	1	12	1

Also agrostis stolonifera, briza media, poa annua, poa pratensis, phleum pratense minor, hordeum pratense, aira flexuosa, aira cæspitosa, with lathyrus pratensis, lotus corniculatus, and trifolium minus, are more or less also found in natural meadows.

The above will be found to constitute the principal ingredients of natural pastures, and of hay of a *medium quality*. The hay, in general, called old meadow hay, which I have frequently examined as brought for sale to the haymarket in London, is composed of these grasses, although of course varying occasionally in the proportions of the different species, according to the soil which produced it. That a judicious selection from the different species of grass now enumerated would give a very superior quality of hay, and consequently of pasture, is certain; but that is not now the question, they are here stated as the component parts of hay in general, the natural food of stock in winter, as regards the first step of art in assisting and forwarding the processes of nature, in the increase and *preservation* of food for the more valuable domestic animals in winter, or in that season when their instinct is put to the severest exertion to obtain the means of existence. The Almighty, in his infinite wisdom, makes it, therefore, the interest of man to exert his intelligence in accumulating and preserving food for the inferior or more valuable domestic animals most dependent on his care.

The above details of the properties of the plants, which constitute the summer and winter food of cattle, give an average per pound—

In Summer.

Of Water.			Dry Fibre.			Nutritive Matter.		
oz.	dr.	qr.	oz.	dr.	qr.	oz.	dr.	qr.
10	8	1	4	14	1	0	9	2

In Winter.

Of Water.			Dry Fibre.			Nutritive Matter.		
oz.	dr.	qr.	oz.	dr.	qr.	oz.	dr.	qr.
0	0	0	13	6	1.	1	15	3

If we compare the above with the properties of artificial food given to stock in winter, the comparison will show what a large excess of water is taken up with that food, at a season when it is least wanted to promote the health of the animal. One pound weight, as before, of the common white globe, or Norfolk white turnip, consists of

Water.			Dry Fibre.			Nutritive Matter.			
oz.	*dr.*	*qr.*	*oz.*	*dr.*	*qr.*	*oz.*	*dr.*	*qr.*	
14	7	0	0	12	2	0	12	2	W. Nor. Turnip.
13	9	0	1	7	0	0	16	0	W. Swed. do.
13	15	2	0	14	3	0	17	3	Yel. do. do.
14	5	3	0	12	3	0	13	2	Red Man. Wur.
14	6	3	0	10	3	0	14	2	Yel. or Golden Mangel Wurzel, French do. &c.

Every pound weight, therefore, of white globe or the Norfolk turnip, contains upwards of three fourths of a pint of pure water, and when the season of the year is considered in which turnips are eaten by sheep, there can be but little doubt, that the existing cause at least, if not the origin, of many fatal diseases, as the *rot*, *red water*, &c. is to be traced to the excess of water in the winter food of the sheep. An allowance of dry food, as hay, or even good straw, with winter bulbs, to the amount of a pound or two a day, would be found very beneficial in correcting the bad effects of the *watery* food which that otherwise invaluable root the turnip affords. Mangel wurzel is equally objectionable, as a food given without any drier substance. Swedish turnips are much less objectionable, as may be seen by referring to the above statements.

If a shelter could be afforded to sheep on folded turnips, and a portion of dry food served with them, the benefit would doubtless be great. A moveable *pent-shed*, with one side weather proof, and which could be moved at pleasure, according to the stormy point of the weather, would insure all the benefits which the valuable root in question is capable of affording, by bringing it closely to the properties of the natural food of the sheep. It is with the greatest deference to the superior judgment of the enlightened farmer that I submit these observations.

While on the subject of the food of the more valuable domestic animals, I may be permitted to add, that the trials which have been made on almost every kind of soil, and on extensive scales, of returning land to permanent pasture of the most nutritive quality, in the short space of two seasons, have been in every instance within my experience perfectly successful. As an illustration of the different kinds of soil alluded to may be mentioned, out of numerous other instances in England, Scotland, Ireland and Wales, alluvial peaty soil, on the farm of the late Emily, Marchioness of Londonderry, North Cray, Kent; calcareous gravelly soils, on Mr. Crawley's estate, Stockwood, in Bedfordshire; stiff clayey soils, on Mr. Whitehouse's estate, Studly, Warwickshire; light sandy soils, on Mr. Beaumont Swete's lands, Oxten, Exeter, and the Duke of Bedford's, in Devonshire, under the direction of Mr. Wilson; on moor and cold elevated soils, on the lands of Mr. Brown, of Auchnlochen, Lanarkshire, and Lord Ruthven's, Pertshire. It is highly gratifying to find this most important branch of practical husbandry taken up and investigated fully by gentlemen who will do justice to the subject.

G. Sinclair.

New Cross, April, 1829. [*Brit. Far. Mag.*

Selected by David Ap Owen.

To destroy Foxes and Birds of Prey.

"Take the carcass of a sheep, and having removed the skin, fasten it to the ground with the back uppermost. Make cross incisions into the fleshy parts, so that the squares made by the cuts do not exceed an inch and a half. Separate each piece nearly from the bone, but not altogether. Then make one or two punctures with a penknife, an inch and a half deep into each piece, and fill them nearly full of a mixture of equal parts of corrosive sublimate and arsenic, previously made into a paste with honey, put all the squares into the natural position and leave the place. When a fox or an eagle or a parcel of crows, attack the carcass, they will not find much difficulty in tearing off the flesh, and in the hurry of competition, they will gobble up the poisoned pieces entire and soon die. When a carcass is poisoned without cutting, the poison is apt to be lost in tearing the flesh in pieces."

[*Mackenzie.*

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Merino Sheep as food.

"Prejudices have existed against the merino sheep as an article of food, which probably arose from this source: In Spain no merino wether sheep are kept, except a few to lead the flock; the rams are only cut when they are too old for use, which is always after the age of eight years. The ewes are not killed till they are too old to follow the flock in its migrations, because they are generally a kind of company stock. They are at a distance from the habitations of their owners, and they afford a stated revenue. It can hardly be supposed that old rams and old ewes, half fatted upon the dry pastures of Spain, should make even tolerable food. It is now, however, fully ascertained that no sheep in England make finer mutton."

[*Livingston.*

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Concise description of British Sheep.

Name.	Horns.	Colour.	Quality of Wool.	Wt of Fl.
Teeswater,	none	w. lgs & f.	Long	9
Lincolnshire,	do.	do.	do.	11
New Leicestershire,	do.	do.	do. fine	8
Castwold,	do.	do.	do. do.	9
Romney Marsh,	do.	do.	do. do.	8
Dartmoor,	do.	do.	long	9
Exmore,	horned	do.	do. coa	6
Heath,	do.	bl. fa. & l.	do.	3
Hereford,	none	wh. legs	sh. fine	2½
Worf,	horned	bl. & spec	do.	1¾
Dorsetshire,	do.	wh. & do.	do.	3½
Wiltshire,	do.	do.	sh. mid	3
Berkshire,	none	bl. & wh.	long	7
South Down,	do.	spec. do.	short	2½
Norfolk,	horned	black do	do.	2
Hardwick,	none	spec. do.	do.	2
Chiviot,	do.	w. fa. & l.	do.	3
Dunfaced,	do.	dun do.	do.	1½
Shetland,	do.	various	do. f. co	1¾
Spanish,	r. horned	white	do. sup	3½
Spanish Cross,	do.	do.	fine	2¾

MEASUREMENT OF GRAIN.

Account of Grain measured at Philadelphia, for the two first quarters of the year 1829, compared with the same period of last year, per returns of A. P. Fœring, Esq. Head Measurer.

	1829.			1828.		
	1st qr.	2d qr.	Total.	1st qr.	2d qr.	Total.
	bush.	*bush.*	*bush.*	*bush.*	*bush.*	*bush.*
Wheat,	4,179	34,406	38,585	8,263	14,151	22,414
Corn,	17,946	186,872	204,818	22,881	76,320	99,201
Rye,	1,331	8,719	10,050	1,280	1,200	2,484
Oats,	6,545	25,255	31,800	7,090	14,235	21,325
Barley,	....	1,213	1,213	3,593	3,746	7,339

[*Philad. Price Current.*

SUGAR FROM BEETS.

It is with pleasure that we lay before our readers the annexed Memoir on the Manufacture of Sugar from Beets. It is from the pen of a French gentleman, now residing in Brighton, and was politely sent to us in consequence of a suggestion which appeared in the Courier about a month since. M. Isnard is now chiefly engaged in chemical pursuits, and was extensively so in France before he took up his residence in our neighborhood. He has still some interest in the making of sugar from beets in France; a fact which we learned from several letters which he placed in our possession from the French Minister of the Interior, and from the Minister of Manufactures and Commerce.

Memoir on the Sugar from Beets.

By the Sieur Max'n Isnard, chemist; formerly director of one of the four imperial sugar manufactories, instituted by Napoleon.

The existence of sugar in the beet was discovered by Margraff, a Prussian chemist, about sixty years since. Some time after, M. Achard, another Prussian chemist, resumed the investigations of M. Margraff, and announced, that by means of a process of his own invention, there could be obtained from the beet a sugar equal to that of the cane, and at the price of only six cents a pound. A fact so important, and announced by so distinguished a chemist, induced the first class of the Institue to make an experiment of the process of M. Achard, and a committee was chosen for that purpose. According to the report of this committee, it appeared, that a great quantity of sugar could be obtained from the beet; that the process of Mr. Achard had not entirely succeeded; and that every thing induced them to believe that Mr. Achard had been deceived, in saying that the sugar could be made at six cents a pound, but that it could be made for eight. Although this price was very low, this first experiment was not the cause of any immediate undertaking.

In the year 1811, while at Paris, engaged in researches in chemistry as applied to the arts, I conceived the idea of examining, more thoroughly than had ever been done before, into the question concerning sugar from beets; and, with this design, I associated myself with M. Barruel, PREPARATEUR of the school of medicine, who had been charged with repeating the experiments of M. Achard. The result of our labour was a great quantity of refined sugar, which his Majesty Napoleon was pleased to accept, as also the memoir we compiled upon the subject. Our endeavors were rewarded far beyond our expectations; two imperial manufactories were erected under our direction, at the expense of the government, and one given to each of us, as property.

Such was the first and real origin of the manufacture of sugar from beets in France; and, if hereafter, as every thing induces me to believe, this fertile branch of industry shall be cultivated sufficiently to furnish the sugar necessary for the consumption of this country, it will be one of the benefits, which it owes to the genius of that great man, whose penetrating eye looked into the future, and whose liberal hand left nothing without its reward.

The first entrance of the allied troops into France injured the sugar manufactories, and especially those called imperial; but the impulse was given, and peace only was needed, that this kind of industry should be resumed with profit.

Cultivation of the Beet. The beet is sown in April. It is better to sow it crossways (en quinconx) than at random, being on this account more easy to be weeded and rooted up by the plough. A light and even sandy soil is preferred. The beet, far from impoverishing the soil, as some seem to think, causes it to furnish crops of vegetables, in greater abundance, and of better quality. The expenses for cultivating an arpent in France (equal to one and a quarter American acres) are as follows. Rent 8 dollars; taxes 1 dollar and 60 cents; 3 laborers 7 dollars and 20 cents; seed and sowing 1 dollar and 60 cents; twice weeding 4 dollars; manure 8 dollars; ploughing up 4 dollars and 80 cents; total 35 dollars and 20 cents.

The produce of a French arpent varies between 12,000 and 48,000. The average is considered

20,000; the average price of beets is 2 dollars per 1000 lb. So that the cultivators received a net profit of 4 dollars and 80 cents per arpent, which is a great deal, if those lands only are sown, which would otherwise remain uncultivated. One can already perceive how profitable the making of this sugar will become to France, in this respect alone.

Opinions are yet divided concerning the best kind of beet; the nature of the soil, and the quality of the manure, seem to have the greatest influence in advancing the sugar qualities. Manure too fresh and too abundant renders it difficult and sometimes even impossible to extract the sugar.

Produce. 1000 lbs. of beets, just from the fields, lose about 15 per centum, by the cutting off the tops, necks and shoots, and by being washed. From 100 lbs of beets are obtained from 55 to 60 per cent. of juice, and consequently from 45 to 40 residue. The evaporated juice furnishes from 5 to 6 of syrup, from which are made from 2 to 2½ of raw sugar, and from 3 to 3½ of molasses. Thus, the mean produce of a French arpent, consists in 1000 to 1200 lbs of syrup, equal to good molasses from the colonies, if the sugar be not extracted; or 400 to 500 of raw sugar fit for refining, and the different uses of raw sugar; besides 600 to 700 of coarse molasses, inferior in taste to that of the colonies, but susceptible of a fermentation like wine. Finally, in 8000 to 9000 of the residue of the beets, which is considered the best nourishment that can be produced for the fattening of cattle, and which will also serve in the winter for sheep and horses, and I think I can assert, that in this respect, and in the making of syrups, there is no doubt that the American cultivators will find a great profit in growing the beets at large; and that the numerous distilleries will find in the syrups, an advantageous substitute for the West India molasses.

Making of the Syrup. The beets are to be deprived of their tops, necks, roots, and then washed; they are afterwards to be scraped. This is the only way of obtaining easily the juice. Bruising, beating, &c. have been tried, but without success. The pulp of the beet is then placed in bags of strong cloth, (but not too firm) and submitted to the action of a strong pressing. The juice, thus obtained, should, with the shortest delay possible, be poured into a kettle. It is to be most carefully observed that the juice of the beet never come in contact with wood; and if it should happen so at any time, the wood ought to be frequently washed with lime water. The juice, placed in the kettle, should be raised as quickly as possible to 210 degrees Therm Fah't., and so kept for 15 or 20 minutes. The froth should then be removed; and if none has been formed, there should be added to the juice from 4 to 6 ounces of lime for every 1000 lbs. of juice, and the whole should be well stirred and boiled. (The lime, which is used, is obtained from lime stone, by soaking and dissolving it in hot water.) The liquid should be kept boiling, taking care to remove the froth, and after a half or three quarters of an hour, it should be filtered through some woollen stuff. The strained liquid is again poured, quite hot, in the same kettle, or even one not quite so large, and it will evaporate in a very short time, until it has acquired a specific weight of 1,200; that is to say, until it weighs one-sixth more than water. It is to be again filtered through something wollen, and when it has cooled to 150 or 160 degrees Therm. Fah't. it is to be replaced in a kettle, and to it there should be added from 4 to 5 lbs. of animal or vegetable carbon, reduced to a very fine powder; the whole is to be swiftly stirred; and then for every 100 lbs. of syrup, there should be added ½ lb. of blood, diluted with half its weight of water, the whole being well mixed together. After this the temperature of the liquid is to be gradually raised to the boiling point, but it should not boil very fast. The froth, which has formed on the surface, is to be carefully removed. It is then to be again filtered, and if the syrup alone is wanted, the liquid is to be kept together until it gains a specific weight of 1,300. After being kept in a cool place for a few days, it will be ready for use.

Fabrication of Sugar. Those who intend to extract from the syrup, the sugar which is contained in it, should not be discouraged, if they are unsuccessful the first time. It is a nice operation, and requires experience, besides a knowledge of numerous little devices, which, although seeming to be of little importance, make a great difference, and the reasons for which can be readily assigned. The following is the manner of proceeding and the particular case required. The kettle for boiling the syrup should be very thick at the bottom; a small quantity of syrup, not exceeding 4 inches (pouces) is to be poured into it. A brisk fire is to be made, that the syrup may quickly boil, the froth being continually removed. If the liquid rises much in the kettle a small quantity of butter is to be added, and it will immediately sink. Some refiners make use of a thermometer in the syrup, and when it rises as far as 234 degrees Therm. Fah't. they remove the fire or cover it instantaneously, and taking out the syrup, put in another quantity of it. That syrup which is poured out, should be poured into a copper kettle, and carefully covered. Three or four quantities are to be added to it, one after another as they are boiled, taking care to stir it each time, and to determine the crystallization of the syrup, a little raw sugar is to be added. After the syrup has become a little cool it is to be poured into vessels of a conic form, having a hole at the smaller end. This hole is to be closed. Two or three days after, when the sugar has well formed itself, the hole is to be uncovered, so as to let the molasses flow off, while the sugar remains in the vessel. In order to purify the sugar still more, that which is in the cones is to be pressed, and afterwards placed over soft clay worked up with water, which, permitting a part of its water to escape, finishes the washing of the crystals of sugar. This is called bleaching, (terrer.) Some persons bleach the sugar several times. After these bleachings, the sugar remains in the forms and the molasses is found altogether in the pots which are used to support the cones.

It is evident that this manner of obtaining the sugar from beets does not essentially differ from the manner of obtaining it from the cane; and it is a fact worth observing, that since the discovery of sugar in beets, many improvements have been made in the method of procuring the sugar in the colonies, and even the operations for refining the sugar have been considerably improved. Making sugar has now become an art, which before was trusted to common laborers only.

SOUTH CAROLINA INDIGO.

It was generally believed among the indigo dealers that the art of making indigo was lost in this country, but from lots recently received from South Carolina, by Messrs. Partridge and Colgate, 10 Gold street, New York, it appears that some of our southern planters still retain the art in considerable perfection. The quantity received by them is rather more than four thousand pounds, and a judge of the article doubts whether any lot from any other country, taking the range of the grades, can show a better assortment of strong consumable qualities. Some of the samples are very fine, equal to Bengal at one dollar eighty cents per pound, and in all the grades the fractures are remarkably clean and free from foreign matter.—*N. Y. Herald.*

The value of the Indigo now consumed in this country cannot be less than two million of dollars per annum, and the consumption is daily increasing. The duty on indigo is now twenty cents per pound, subject to a progressive increase till it amounts to fifty cents. There is therefore a large field open for our southern planters, and every encouragement for them to go extensively into the business, provided the tariff law of 1828 be not repealed.

I would recommend the makers of Indigo to attend to Mr. Dalrymple's process, as given in the Charleston agricultural reports for the year 1827.—Mr. D. was for many years one of the largest makers in Bengal, and his process was to make it from the dried plant, instead of making it as cut from the field. Mr. Felder, (to whom the lots above referred to belong) informs me that when fermented fresh cut it is weeks before a large field can be taken in, and that consequently some parts will be too old before the whole can undergo the process. This must be a great loss to both the planter and the manufacturer, for it has been ascertained by experienced makers that there is one stage in which the plant will yield the greater quantity of colouring matter, in its greatest perfection, and that when cut too young or too old, there is a great loss both in quantity and quality. W. P.

THE HUSBANDMAN.

No man, one would think, would feel so sensibly his immediate dependence upon God, as the husbandman. For all his peculiar blessings he is invited to look immediately to the bounty of heaven. No secondary cause stands between him and his Maker. To him are essential the regular succession of the seasons, the timely fall of rain, the genial warmth of the sun, the sure productiveness of the laws of nature, which must have appeared to him nothing less than the varied exertions of omnipotent energy.

In the country we seem to stand in the midst of the great theatre of God's power; and feel an unusual proximity to our Creator. The blue and tranquil sky spreads itself over our heads, and we acknowledge the intrusion of no secondary agent in unfolding this vast expanse.—Nothing but Omnipotence can work up the dark horrors of the tempest, dart the flames of the lightning, and roll the long resounding rumor of the thunder. The breeze wafts to his senses the odours of God's beneficence —the voice of God's power is heard in the rustling of forests, and the varied forms of life, activity, and pleasure, which he observes at every step in the field, lead him irresistibly, one would think, to the source of being, beauty and joy.

How auspicious such a life to the noble sentiments of devotion!—Besides, the situation of the husbandman is peculiarly favourable, it should seem, to purity and simplicity of moral sentiment. He is brought acquainted chiefly with the real and native wants of mankind. Employed solely in bringing food out of the earth, he is not liable to be fascinated with the fictitious pleasures, the unnatural wants, the fashionable follies, and tyrannical vices of more busy and splendid life. [*Buckminster*

HORTICULTURE.

(From the Southern Agriculturist.)

ON RAISING TOMATOES FROM CUTTINGS.

Stateburg, March 15, 1829.

Mr. Editor,—At the request of "A. C. R." through the medium of "*the Southern Agriculturist,*" I beg leave to describe the mode of propagating the tomatoes, from "*cuttings, particularly,*" which I have practiced with considerable success for many years I take care to have a sufficient quantity of seed sown in a nursery bed, early in the season, on a border on the north side of my garden, with a southern aspect, covered at night, and exposed to the influence of the sun in the day, which I keep in reserve, in case a late frost should destroy the volunteer plants; the latter I prefer, being stronger, and more forward; either of which I transplant, as the circumstances of the case may require, when they are of a proper size for the first crop. As soon as I discover them beginning to decline, I cut off about two feet of the tops of the freshest and most vigorous stalks for layers, which will still have fruit and blossoms on them. My bed being prepared and laid off in checks, four feet square, with a garden line, I cut trenches on one side of the checks, in which I lay the cuttings horizontally, one foot in the ground, and the tops raised up at the intersection of the lines. At this stage of their growth they will have many buds, or fibres, ready to take root, which seldom fail unless in very dry weather.

As my garden soil is uncommonly thirsty, and as I have sometimes failed in extraordinary droughts, I would recommend to the admirers of this delicious vegetable, a mode which answers every purpose of the other, and in which, I have never failed in a single instance for twenty years, in having an abundance of tomatoes throughout the whole season. I take care to have a supply of plants in the nursery bed, at the proper time for setting out a late crop; they will then be lying on the ground, long and spindling, bearing, and in blossom, with many eyes ready to take root. I draw these up, and lay them as before directed, covering the roots and all the stalks, excepting such a proportion as in my judgment should be left erect, taking care not to break them; these having roots, will be certain to take, and continue bearing until a frost. The stalks above recommended, I think, must have a considerable advantage over plants of a younger growth, and recently taken from a late nursery bed, inasmuch as they have a greater supply of roots, which immediately put out from the joints, in addition to the first, and will sooner produce a vigorous growth of the plants.—On the day I apprehend a frost, I pick all which are ripe, and all which have any tinge of red on them, and lay them on pieces of pine bark in the garden, covered with grass, or fine straw, at night, and opened in the day, which will ripen them more perfectly in a few days; after which, I lay them on a shelf, and unless the weather is unusually cold, or wet, I have them frequently until December. By observing this plan, I had a few tomatoes at my table on last Christmas day, as a rarity. Nearer the sea-board, there can be but little doubt of its succeeding better. Should this communication throw any new light upon the subject, or be productive of benefit to "A. C. R." or any reader of your valuable work, I shall be highly compensated for having made it. I am, respectfully, Sir,

Your most obed't serv't, I. O. H.

INTERNAL IMPROVEMENT.

BALTIMORE AND OHIO RAIL ROAD.

Office of the Board of Engineers,
July 20, 1829.

To Philip E. Thomas, Esq.
President of the Balt. and Ohio Rail Road Co.

Sir,—In pursuance of your request of yesterday, we herewith furnish you a statement of the probable cost of the Rail-road, from its intersection with Pratt street in the city of Baltimore, to the Forks of the Patapsco river (25 miles from this city)—the data for which have been deduced from the two *abstracts* of the Superintendent, now in the possession of the Board.

The items of expense are as follow, viz: On the

1st Division—(extending from Pratt street to the Frederick Turnpike at Ellicotts' Mills, and including 4156¼ poles=12 99-100 miles,)
Graduation and masonry, $438,390
making $37,597 per mile.

2d Division—(extending from Ellicotts' Mills to the Forks of the Patapsco, and including 3737 poles=11 68-100 miles,)
Graduation and masonry, $120,163
making $10,288 per mile.

The average cost of graduation and masonry on the two first divisions may, therefore, with perfect confidence in its sufficiency, be assumed at $24,670 per mile; for it will be perceived, by a reference to the abstracts alluded to, that the above estimate is based on the present contract prices (as exhibited in the abstracts) only when such prices are known to be adequate to the accomplishment of the work; and that wherever a doubt has arisen as to the sufficiency of those prices, a sum believed to be sufficient has been added to the contract prices.

In further accordance with your wishes we subjoin an estimate of the *maximum* cost of the road from the Forks of the Patapsco to the Point of Rocks—the same being predicated on the cost of construction already incurred on the first and second divisions, viz:

12 miles at $10,288 per mile,	$123,256
9 do. 8,000 do.	72,000
12⅓ do. down Bush Creek at $5,000 per mile,	61,667
8 do. to the Point of Rocks, at $8,000 "	64,000
Wooden Viaduct across the Monococy, including masonry and embankment,	20,000
66 miles from Baltimore at $14,386 per m.	$949,476

To which, if we add the cost of materials for rails and the laying of the same, which we believe will not exceed $8,000 per mile for a double set of tracks, we have the average cost of the first 66 miles at $22,386 per mile—or the total cost of that portion of the road between Baltimore and the Point of Rocks=$1,477,476.

The principal causes to which may be ascribed the enhanced cost of the first and second divisions of the rail-road, beyond what was originally estimated, have on a former occasion been enumerated; and it can easily be shewn that but for the substitution of works of a more permanent nature than were at first contemplated (to say nothing of the great advance in the price of labour, &c.) the average cost of the first 66 miles would not have exceeded $20,000 per mile.

Which is respectfully submitted,
(Signed) S. H. Long,
I. Knight,
Wm. Gibbs McNeill.

LADIES' DEPARTMENT.

CONRAD LEAVING MEDORA.

[Our fair readers will allow that we do not often encroach on their department with *poetry*—we prefer generally to fill the space allotted to them, with something useful and of sterling value, in their own honourable sphere of action and of duty;—but reading, not for the first nor the second time, the Corsair, without stopping to consider, we took the pen and marked for the printer, the following prelude to the parting between Conrad and his beautiful Medora. He is on the eve of sailing with his devoted followers upon a desperate enterprise, and goes to his Tower to bid her adieu, as it would seem with a foreboding of evil at his heart—as he enters unperceived, he hears his "bird of beauty" singing

"Deep in my soul that tender secret dwells."

In our next we will give the final parting. What a painting it would make were it possible for the pencil to pourtray the brilliant conceptions of a poet fired by more than mortal inspiration.]

—

Thus with himself communion held he, till
He reach'd the summit of his tower-crown'd hill:
There at the portal paused—for wild and soft
He heard those accents never heard too oft;
Through the high lattice far yet sweet they rung,
And these the notes his bird of beauty sung:

"Deep in my soul that tender secret dwells,
Lonely and lost to light for evermore,
Save when to thine my heart responsive swells,
Then trembles into silence as before.

"There, in its centre, a sepulchral lamp
Burns the slow flame, eternal—but unseen,
Which not the darkness of despair can damp,
Though vain its ray as it had never been.

"Remember me—Oh! pass not thou my grave
Without one thought whose relics there recline
The only pang my bosom dare not brave,
Must be to find forgetfulness in thine.

"My fondest—faintest—latest—accents hear·
Grief for the dead not Virtue can reprove;
Then give me all I ever asked—a tear,
The first—last—sole reward of so much love'"

He pass'd the portal—cross'd the corridore,
And reach'd the chamber as the strain gave o'er·
"My own Medora! sure thy song is sad—"

"In Conrad's absence wouldst thou have it glad?
Without thine ear to listen to my lay,
Still must my song my thoughts, my soul betray
Still must each accent to my bosom suit,
My heart unhush'd—although my lips were mute!
Oh! many a night on this lone couch reclined,
My dreaming fear with storms hath wing'd the wind,
And deem'd the breath that faintly fann'd thy sail
The murmuring prelude of the ruder gale;
Though soft, it seem'd the low prophetic dirge,
That mourn'd the floating on the savage surge:
Still would I rise to rouse the beacon-fire,
Lest spies less true should let the blaze expire.
And many a restless hour outwatch'd each star,
And morning came—and still thou wert afar.
Oh! how the chill blast on my bosom blew,
And day broke dreary on my troubled view,
And still I gazed and gazed—and not a prow
Was granted to my tears—my truth—my vow!
At length—'twas noon—I hail'd and blest the mast
That met my sight—it near'd—Alas! it past!
Another came—Oh God! 'twas thine at last!
Would that those days were over! wilt thou ne'er,
My Conrad! learn the joys of peace to share?
Sure thou hast more than wealth, and many a home
As bright as this invites us not to roam:
Thou knowest it is not peril that I fear,
I only tremble when thou art not here:
Then not for mine, but that far dearer life,
Which flies from love and languishes for strife—
How strange that heart, to me so tender still,
Should war with nature and its better will!"

"Yea, strange indeed—that heart hath long been changed;
Worm-like 'twas trampled—adder-like avenged,
Without one hope on earth beyond thy love,
And scarce a glimpse of mercy from above.
Yet the same feeling which thou dost condemn,
My very love to thee is hate to them,
So closely mingling here, that disentwined,
I cease to love thee when I love mankind.
Yet dread not this—the proof of all the past
Assures the future that my love will last.
But—Oh Medora' nerve thy gentle heart,
'This hour again—but not for long—we part."

SPORTING OLIO.

THE SANDWICH WOLF.

The Barnstable, Massachusetts, Journal, gives many particulars (four or five columns) concerning the wolf lately killed in Sandwich, in this state, of which the following is an abstract. A great proportion of Plymouth, Sandwich, Barnstable and Falmouth, is still covered with forest, and this forest land is connected together so as to form one extensive, uncultivated region, which affords a wide range for deer and other animals. The inhabitants of these towns are not so exclusively seamen as is commonly thought; the greater part are farmers, who get their living out of the ground; one of the principal objects of their attention is sheep, which they drive into the woods after shearing, where the animals find sufficient food during the summer. In 1827, many sheep were found dead in the woods, much mutilated about the throat, and some were found wounded, but not killed; at length the tracks of some unknown animal were discovered, and soon after, a strange beast, resembling a large dog, was seen. Ween the sheep returned to their owners in the fall of 1827, some farmers did not find more than half their number, and more or less were missing from almost every flock. During the winter of 1827—8, the unknown animal visited the enclosed fields and barn yards, and killed some sheep in almost every fold, in the vicinity of the woods; his tracks were seen in the snow, and the citizens united in hunting matches to destroy him, but he escaped unharmed. In the summer of 1828, he killed many sheep, both in the pastures and in the woods, and several carcasses of deer were discovered; he was frequently seen, and many times pursued by the hunters, but always escaped. He was once seen in the road by two young women; after they had shouted at him several times, he deliberately jumped over the fence into a field and killed a lamb. Prey was abundant, and he seldom took more from a sheep than the blood, the milk glands of ewes, and a few mouthfuls from the hind quarters; many sheep were found alive, cruelly wounded, and a few recovered. During the winter of 1828—9, he continued his usual habits, and many a general turn out of the people was made after him, but they could neither kill nor capture him. Dogs were afraid of him, and would not follow his track. Each of the towns of Sandwich and Falmouth offered a reward of $100 for his destruction within their bounds. At length, on the 10th of June last, a party discovered him in Barnstable, and Joseph Hoxsie severely wounded him with a charge of buckshot; he was pursued about three miles to a swamp in Sandwich, where a second charge of buckshot killed him. He proved to be a wolf, weighing 68 pounds, and measuring 6 feet from the nose to the end of the tail. It is supposed that he was brought to Plymouth from Labrador by a fishing vessel, a few years ago. The vessel had three whelps on board, one of which escaped to the woods, and the others died; they were supposed to be young foxes, but it is now believed that they were wolves. It was a season of great rejoicing when the animal was slain. He had destroyed more than one thousand sheep in Sandwich, and perhaps an equal number in other towns. About 40 years ago a wolf from Vermont made great destruction among the sheep in Barnstable and Plymouth counties, where he remained two or three years; he was killed in Middleborough.

MISCELLANEOUS.

Use of the Whiskers of Animals.

Every one must have observed what are usually called the *whiskers* on a cat's upper lip. The use of these in a state of nature is very important. They are organs of nature. They are attached to a bed of close glands under the skin; and each of these long stiff hairs is connected with the nerves of the lip. The slightest contact of these whiskers with any surrounding object, is thus felt more distinctly by the animal, although the hairs are themselves insensible. They stand out on each side, in the lion, as well as in the common cat, so that from point to point, they are equal to the width of the animal's body. If we imagine, therefore, a lion stealing through a cover of the wood in an imperfect light, we shall at once see the use of these long hairs. They indicate to him, through the nicest feeling, any obstacle which may present itself to the passage of his body; they prevent the rustle of boughs and leaves, which would give a warning to his prey if he were to attempt to pass through so close a bush; and thus, in conjunction with the soft cushions of his feet, and the fur upon which he treads, (the retractile claws never coming in contact with the ground) they enable him to move towards his victim with a stillness greater than that of the snake who creeps along the grass, and is not perceived till he has coiled round his prey. [*Lib. of Enter. Know.*

On the use of Lime for Preserving Health.

Lime as an antidote to contagion, a preservative against infection, and a means of purifying vaults, is not so much used as it should be. By means of this simple but powerful agent, together with a due attention to cleanliness and ventilation, the air in jails, hospitals, ships, &c. may be rendered comparatively sweet and salubrious. A quantity of it, while hot and quick, sifted every day or two into the vaults of the back houses, would greatly contribute to comfort and health.

We should think it a very serious matter if we were forced to eat tainted provisions, or drink filthy water, and yet seem well satisfied with taking a substance into our lungs which is fit only to support the respiration of reptiles accustomed to "feed on the vapors of a dunghill." And this we suffer, while the remedy is at hand, and almost as cheap as the scrapings of the street!

The walls of cellars, dairy rooms, sitting rooms, and indeed of all apartments, which are much occupied by human beings should be well coated with good caustic lime white wash, at least once a year. The time for its application should be just before the heats of summer become fervent and oppressive. "In London," says Willich's Encyc. "a society is organized for the cure and prevention of contagious fevers in the metropolis," and they have appropriated a certain sum of money for purifying the tainted habitations of the poor. Their method consists simply in washing the walls of the room with hot lime, which will render the place perfectly sweet.

In the villages of New England, the practice of white-washing the walls and ceiling of dwelling apartments is very common; in cities less so.—The walls of the apartments of our more opulent citizens are usually decorated with costly paper, or something else, which would be spoiled by white-washing; and if they prefer decorations to health, they must submit to the unwholesome annoyance of a contaminated atmosphere. [*N. E. Farmer.*

Natural History of Fleas.

Fleas breed and undergo their metamorphosis in a manner somewhat similar to the silk worm. A number of eggs being collected from a dog, and put into a pill box, in a few days produced hairy caterpillars—which were fed with dead flies, and which the caterpillars ate in a very voracious manner. It was observed, occasionally, that they cast their skins; and in about ten days after their exclusion from the egg, they spun and wove themselves little cases, after the manner of silk worms, in which they remained enclosed in the chrysalis state about nine days, and then came forth perfect fleas, armed with sufficient powers to disturb the rest, or even the peace of an emperor!

(From the Cambridge Chronicle.)

TIDE MILL.

Mr. Callahan—Having seen in the last Chronicle, Mr. Joseph Ennall's communication in regard to the competency of his tide-mill, to make good flour, as well as meal, I sent to him a few days ago, six bushels of wheat, really, for a *hopeless experiment;* the result was, in candor, so agreeably different from my expectations, that I am induced by a sense of justice to him, and a belief of the convenience afforded to the public, to state, that having been, generally, accustomed to have my own wheat manufactured in the county, in preference to purchasing flour from Baltimore, I have never, in any instance, received from any mill, a return so satisfactory, in both quantity and quality, as that yesterday, from Mr. E's mill; when I have occasionally purchased a barrel from Baltimore, it has always been of the best family flour; and yet I have not met with any superior, if equal to, that manufactured for me, by Mr. Ennall's tide-mill.

Economy, luxury, and convenience will necessarily throw into this mill, the neighboring grain; and the policy, if not the pride of encouragement to domestic enterprise, will add to the gratification of its success. A Farmer.

[We should like to have a description of the site of this mill, swell of tide, hours of grinding, quantity ground, &c. &c.]

The subscriber begs leave to inform the public that his mill is now finished and in order for the reception and grinding of grain. He has a first rate bolting cloth and chest; and, from actual experience, is authorised to say that he can and will have all wheat and corn sent to him, ground in the best and most satisfactory manner.

He will be glad to receive and prompt to execute all orders appertinent to the above business.

JOSEPH ENNALLS.

Attachments Formed by Animals.

When I lived in Paris, there were two remarkably fine ostriches, male and female, kept in the Rotundo of the Jardin du Roi. The skylight having been broken, the glaziers proceeded to repair it, and, in the course of their work, let fall a piece of glass. Not long after this, the female ostrich died after an hour or two of great agony. The body was opened, and the throat and stomach were found to have been dreadfully lacerated by the sharp corners of the glass which she had swallowed. From the moment his companion was taken from him, the male bird had no rest; he appeared to be incessantly searching for something, and daily wasted away. He was moved from the spot, in the hope that he would forget his grief; he was even allowed more liberty, but nought availed, and he literally pined himself to death. I heard of a curious expedient the other day, which prevented a similar catastrophe, and which has led me to address you:—A gentleman residing in this country, had for some years been possessed of two brown cranes, one of them died, and the survivor became disconsolate. He was apparently following his companion, when his master introduced a large looking glass into the aviary. The bird no sooner beheld his reflected image than he fancied she for whom he mourned had returned to him; he placed himself close to the mirror, plumed his feathers, and showed every sign of happiness. The scheme answered completely; the crane recovered his health, passed almost all his time before the looking glass, and lived may years after.

[*Mag. Natural History*

BOTTLE OR LEG.

Yesterday a man came to an apothecary's store in Hudson street, to buy 3 cents worth of salts; to cure an ulcer on his leg as broad as both his hands, of three years standing. He is a carpenter by trade, and carries as rubicund a visage as need be exhibited by the jolliest votary of Bacchus. After talking the matter over sufficiently, he was told in so many words, that of the leg and the bottle, one or the other must be given up—it was farewell bottle or farewell leg. From the appearance of the man, it is to be feared that leg and life will both go, before a voluntary parting from the bottle. Man lives a nuisance and destroys himself, when once a slave to the intoxicating draught.—*N. Y. Eve. Journal.*

RECIPES.

Gillett Cakes.

Take two teacupsful of sugar, same of butter, two eggs, two teaspoonsful of pearl ash dissolved in half a cup of milk, and flour sufficient to work the whole into a mass. Make thin cakes of the size of the top of a narrow coffee cup, and bake on tin plates. A better accompaniment to n glass of gooseberry or scuppernong, never passed the lips of

Cousin Tab.

Delicious Pudding.

The farina of potatoes, or potato starch, is said to make an *elegant* pudding. The following are the ingredients: To one quart of boiled milk, add, gradually, as in making mush, a quarter of a pound of potato flour, well pulverized, a quarter of a pound of sugar, and a little butter; when cold add three eggs, and bake it half an hour. When well prepared, and properly cooked, it is delicious eating.

THE FARMER.

Baltimore, Friday, August 7, 1829.

Manumission of Negroes.—The time has arrived when this subject ought to be taken up by the Legislature of Maryland—we feel neither disposed nor qualified to discuss it; and we shall set out with the avowal of our resolution not to be drawn into any *debate*, on the abstract question, nor into angry recrimination with any who hold opinions differing from our own. We will unite in denouncing it with the bitterest enemy of slavery,—in any form,—exist as it may, "still slavery thou art a bitter draft"—but bitter as it is, it is not so deadly and poisonous, as manumission is to those who remain where slavery is sanctioned by the laws—experience proves that there is no condition of humanity, which begets more wretchedness, more vice, more premature disease and mortality, than that of emancipated negroes who remain without political rights, in the midst of a free white population. They embitter by their presence the happiness of those who remain slaves. They entice them and furnish them with facilities to elope, and lead, forever after, a miserable life in perpetual dread of apprehension. Nay, it is notorious that they often seduce the slave into criminal violations of the law, to supply them with the means of subsistence which, overcome by indolence or enervated by drunkenness, they rarely provide for themselves. In every aspect the presence of manumitted negroes is highly destructive of the morals, the happiness, and even of the lives both of themselves and the slaves with whom they associate and are connected. On the score then of sheer humanity as well as of policy, for in this case they are inseparable, it behoves the legislature to provide against the manumission of negroes, *unless on condition of provision being made for their leaving the country* It may be said that this would be an unwarrantable interference with the right of property, but does not the very institution of government presuppose the power on the part of the government so established, to interfere with the rights and disposition of property, with a view to the general good? Is it not the very aim and purpose of government? For what other end would men surrender their natural freedom? If the legislature of a state can say that I shall not sell a barrel of flour but of a particular weight, and that a hogshead of tobacco shall be of certain dimensions. If it have power to regulate the number of nails in a hoop, shall it not have power to prevent men under the influence of mistaken philanthropy, from entailing a moral pestilence on the community? Shall we be allowed to extract from any substance, all that can be squeezed out of it, to satisfy our own wants and desires, whether real or sumptuary, and when we can no longer derive from it advantage or pleasure, be permitted to cast the refuse mass on the highway, there to corrupt and putrefy, exhaling disease and death to all around? Be it observed, that we are not discussing the right of slavery in the abstract—that is quite another matter; we abhor the principle, but the evil is here; it exists; it has been entailed upon us, and it is worse than folly to say that we shall not regulate, modify, diminish and extirpate that evil, in a manner most promotive of the public interest and the general happiness. If a man would so far forget what is due to mercy and humanity, as to consign a number of his fellow creatures to inevitable privation and wretchedness under the garb or honest influence of religion, or benevolence, arrest his hand and tell him, no sir—you shall cherish these unfortunate people, you shall, as your neighbours do, feed and clothe them—provide attendance and medicine when sick, and kind treatment at all times, compelling them to labour regularly and steadily for their own happiness sake as well as for their subsistence, but do not for profit or conscience sake turn them loose upon your neighbours, to work their way through drunkenness, and misery, and crime, to the penitentiary and the gallows—stung as they must ever be in the sight of genuine liberty by an eternal sense of real degradation.—If you would accomplish for them the benefit you profess it to be your wish to confer, provide the means of sending them to Hayti or Africa, where they may become animated and elevated by a sense of equality and real independence, and where it will be the *interest* of *all* that all should labour and be secure in the fruits of their industry—we will not permit society and the very subjects of your caprice, or your ill directed philanthropy, to be essentially injured that you may be gratified.

Where they are emancipated by last will and testament, require the testator to make provision also for their transportation; and for this purpose the labour of those who are grown might be appropriated for a term sufficient to defray the expense of transporting all. But it is not our purpose to go into any details—all we mean to say is, that self interest and humanity alike demand that measures be adopted to prevent the residence of free negroes in the country—were we recommending that measures be taken to *extinguish the race altogether*, we verily believe that after the *axe*, the means most certain, and far more cruel would be to manumit them all and leave them like the poor Indian, with "the word of promise kept to the ear and broken to the hope," to go by the same road, surely, though perhaps not so slowly to the same goal of *final extermination*.

It would humiliate us if we could believe it necessary here to guard the reader against a misconstruction of our principles, so far as to imagine that we recognise any right but in the state governments to interfere in any manner or form in a matter essentially *domestic*. It is one at which we hold the general government to have no right even to *glance*. It is not in the *bond*, and that is enough—neither was it fit that it should be there.

☞ New Vegetable.—A new vegetable has been raised in the garden of Gideon B. Smith, of this city, which bids fair to become an important addition to our culinary plants. The seed was received at Boston from London, where it has lately been introduced from France. It is a species of white beet, and what is called in France "*Swiss chard*," (pronounced *card*.) It is very common in Switzerland and the north of France, and considered the very best of all spinaceous plants. It is cultivated for its foot stalks and leaves exclusively, its root being fibrous. The stalk of the leaf is very large, some of those in Mr. Smith's garden exceeding two inches and a half in width, very white, and so tender that when first gathered it will scarcely support the leaf. The leaf is pretty large, of a pale green, and also very tender. It is one of the most beautiful and luxuriant vegetables while growing, that can be imagined. One plant will furnish enough for a small family dinner. The stalks are separated from the leaf and prepared and served up in the manner of asparagus—the leaves like spinach. In Europe they have a great variety of ways of preparing it for the table. Several gentlemen have tried it in Baltimore, and pronounced it excellent. Mr. Smith will devote the whole of his present little crop to the production of seed for distribution.

Large Cucumbers.—We have now in the Farmer office two cucumbers, raised in the garden of Gideon B. Smith, measuring, the one 17 inches in length, and 13½ in circumference; the other 15 inches in length, and 11¼ in circumference. The largest weighs 4 pounds 12 ounces, and the smallest 3 pounds 6 ounces.

In the same garden there are several stalks of corn, measuring 13½ feet high, and bid fair to grow still higher. It is of the yellow gourd seed kind. Mr. Smith had green corn in abundance on the 8th July—it was a very superior kind of early sugar corn, small cob and deep grain.

☞ Once Again.—Very often lately we have received letters, saying to this effect: I wish to become a subscriber to the American Farmer; send me the paper, and on receipt of the first number the money shall be paid to your agent, or remitted; and although in almost every instance, we have entertained not the least doubt of the punctuality with which the promise would be complied with, yet the importance of adhering to a general rule has compelled us to decline. As to agents, men, if they be but sober men, are generally their own best agents; and if they be drunkards, they are not men but beasts, and ought to be put under guardianship—however, that is another matter.

As to subscribing originally, or paying what is already due, and every one's subscription is due in advance, the best and simplest way, as we have often said, is to send the money, by mail, at the risk of the editor. We are thankful for the patronage of every honest man; and gentlemen who wish to subscribe need not hesitate to inclose their five dollars, because we here promise most unfeignedly and in good faith, that if, when they receive the paper, it falls short of their expectations as to utility and value, we will, without the slightest hesitation or murmuring, return them the money.

This paragraph was not *designed* for subscribers in arrears, but if it should remind them, without waiting for *agents*, to send the money by next mail, we can assure them, in a spirit of friendship and truth, that it could not come more opportunely.

VIRGINIA CROPS.

Extract—*Cumberland County, Va. July* 24, 1829.

"This county, since the 1st of the month, has been deluged with frequent and tremendous rains, injuring, and in many places entirely destroying, the crops of tobacco on the flats of creeks. The crops of corn were never more promising. The crops of wheat are said to turn out badly from the straw, and all the farmers who have been threshing are very much disappointed in the quantity."

Baltimore Market —There is no change whatever in the prices of flour or grain, and our last weeks quotations are continued—they are the rates of actual sales made yesterday. The wagon price of Howard street flour is $5, to $5.25, the latter rate for fresh ground from old wheat. Live Stock.

There is no change in the prices of beef on the hoof—in this as in every thing else the market is extremely flat.

LATEST FOREIGN NEWS.

By an arrival at Boston, intelligence from Liverpool to the 21st June, and London to the 20th, has been received. There is no important news from the seat of war, nor indeed from any other quarter. The London Courier of June 19th, scoffs at the idea that the war between Turkey and Russia will be extended to the rest of Europe. England, it says, will remain at peace.

The Turks have received great succors at Giurgevo and Rudschuck; their force is estimated at 50,000 men. It is still supposed that Count Diebitsch will continue his operations against Silistria, with his reserve, and advance with the main body of his army towards Rudschuck and Widdin.

The new Vice President Bosniaknow has ordered the Executive Divan to provide provisions for 90,000 men. The reasons of those new wants are not known; whatever they are intended for (our troops already on the other side of the Danube or for the expecting reserves,) nobody is yet able to clear up: it is only certain that the deliveries must be made. The income of all monastic estates is to be seized for several years; at least there is a rumor of it. Three thousand Russians are gone from Wallachia to Bulgaria. Twelve pieces of artillery, of 18 inch calibre, were removed a few days ago towards Giurgevo.

The bombardment of Silistria has begun. During the night of the 21st the whole sky in this direction was red. Two hundred carpenters are occupied at the pontoon of Kallarasch; but even with the utmost exertions it will not be ready, forty boats having been destroyed and carried off at the last inundation.

Liverpool Market, June 20.

A steady and regular consumptive demand is experienced for Foreign Produce, unaccompanied of late by any material fluctuations in price. For several weeks past there certainly has been a more firm market, and the general appearances of business have improved; still the transactions which occur are between the importers and consumers, or otherwise the regular dealers, for speculation on any extended system does not at present seem to be thought of. The consumption of cotton is on an extensive scale, as will be seen by the weekly sales, and which are chiefly made for immediate use, the stocks with the manufacturers being considered as light. Last week 14,365 packages were sold against only 4,572 imported; during the present week the wind has been favourable, and the receipts reach 29,971 bags and bales, and the sales sum up 13,797 packages as follows: 4,751 bags, Boweds, at 5d a 6¼d; 2245 do. N. Orleans 5½ a 7¼d; 2045 do. Alab. &c. 5¼ a 6d; 860 do S. I. 10d a 20d; 26 do. Stained 5¾d a 8d. The above purchases have been made almost exclusively by the trade, and the week closed with a tolerable firm market for American description, but Brazils are more easy to buy. A moderate demand has been experienced for Tobacco; several consumers have during the week been purchasing stemmed, and when there are sellers below the market, buyers appear on speculation. There has been some demand for Carolina rice, purchases are making in extra fine quality at 20s. and down to 17s. per cwt. for ordinary.

The weather has been more favorable for the Spring Grain, and the crops of *Wheat* are considered to look uncommonly well, which with the depressed state of the London Market, owing to heavy arrivals of Foreign, have tended to reduce our prices, and cause a ready disposition with holders to sell.—The duty on Wheat and Flour is considerably reduced this week, and from the state of the Wheat market the two past weeks, this will probably be the lowest duty for some time to come; anticipating this reduction, the dealers have been purchasing Flour of late, and for export there has been a very limited inquiry; it is probable the demand will now revive, provided the holders pay the duty on their Flour and will meet the market at rates proportionate to Wheat. A parcel of *Indian Corn* sold this week (in bond) at 23s 480 lb.—Duties for the ensuing week—on Wheat 10s 8d, on Barley and Indian Corn 15s 4d, and on Flour 6s 5d. per. bbl.

Prices Current in Boston, July 31.

Apples, best, bbl. —— a ——. *Beans*, white, bushel .90 a 1.00. *Beef*, mess, bbl. 10.50 a 11.00; cargo No. 1, 9.50 a 10.00; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.50 a 5.62; Genesee, 5.50 a 5.75; Rye, best, 3.25 a 3.62. *Grain*, Corn, bu. .56 a 58; Rye, .65 a .70; Barley .67; Oats .38 a .40. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl, 17.50 a 18.00; Navy, mess, 13.00 a 13.50; Cargo, No. 1. 13.00 a 13.50. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool*, Merino, full blood, washed, .32 a .45; do. do. unwashed, .18 a .22; do. three-fourths, washed, .26 *a* .32, do. half blood, .23 *a* .27; do. quarter, washed, .22 *a* .24; Native, washed .20 a .23; Pulled, Lambs', 1st sort, .35 a 37; do. 2d sort, .22 a .25; do. spinning, 1st sort, 27 a .30.

Prices Current in New York, August 1.

Bees-wax, yellow .23 a .24. *Cotton*, New Orleans .9½ a .12; Upland, .8 a .10½; Alabama, .8½ a 11. *Cotton Bagging*, Hemp yd. .18 a .21; Flax .13 a .18. *Flax*, American, 8 a 9. *Flaxseed*, rough, tierce ——; clean ——; *Flaur*, N. York, bbl. 5.00 a ——; Canal 5.00 a 5.25; Baltimore Howard st. 5.25 a ——; Richmond city mills, —; country, 5.00 a ——; Alexand'a, 5·00 a 5.25; Fredericksburg —— a 5.00; Petersborg, 5.00 a ——; Rye Flour, 3.37½ a 3.50; Indian Meal, per bbl. 2.25 a 2.37½; per hhd 13.00 a 13,52. *Grain*, Wheat, Vir. 1.00 a 1.02; N. Caro. 90 a 1.00; Rye, North, 60 a —; Corn, Yel. Nor. .56 a .60; Barley, .— a .—; Oats, South and North, .38 a .46; Peas, white, dry 7 bu. —; Beans, 7 bu. 7.50 a 9.00. *Provisions*, Beef, mess 9.62½ a 10.00; prime 7.50 a 8.00; cargo 6.00. Butter, N. York, —— a —; shipping, .8 a .11; Lard, .5 a .6; Pork, mess 13.25 a 13.75; prime 10.50 a 11.00, cargo 9.25 a ——; Hams, Va., per lb. .9 a .10½; Northern .9 a .10½. *Rice* .2½ a .3. *Tobacco*, Virginia .3½ a .5½ a .6½; Kentucky, .3½ a 5½ a .6½. *Wool*, Merino, American fleece, .32 a .36; Pulled, .32 a .35; common, .18 a .25; Pulled, spinning, .18 a .33.

GREEN-HOUSE PLANTS.

Orders for Green-House Plants from the magnificent collection of Messrs D. & C. LANDRETH, Philadelphia, received by the subscriber.

The plants are cultivated in pots, which therefore, admits of transporting at the present season with perfect safety. All orders will be carefully attended to,—packed in boxes and received by the steam-boat line.

The collection of the Messrs. Landreth's is not surpassed by any in the Union, and comprise the most beautiful, both native and exotic. None are sold by them unless in perfect health, and the prices at which they are offered very reasonable. Catalogues may be had *gratis* on application.

Also, a constant supply of the Messrs. Landreth's GARDEN SEEDS, grown and warranted by them.

The subscriber has likewise on hand his usual assortment of AGRICULTURAL IMPLEMENTS, such as Davis' Improved Patent Ploughs; Clery's Patent Improved Scotch Ploughs; Improved Bar Share Ploughs; Substratum do. and Shovel do.; Cultivators; Wheat Fans; Hay Rakes; Straw Cutters; Swingle Trees; Oil Stones; Patent Scythe Rifles, Cast Steel Axes, &c. &c. All the castings for the Davis' and other Ploughs sold by him, constantly on hand to supply the place of those worn out—but he does not furnish castings for making new ploughs.
JONATHAN S. EASTMAN,
No. 36 West Pratt street, Baltimore.

N. B. Wanted, immediately, two apprentices at the above business—one fourteen and the other sixteen years of age.
J. S. E.

McKIM'S GENUINE CALCINED MAGNESIA.

The proprietors of the Maryland Chemical Works, can with confidence, recommend this article to the public as *pure*, and equal in all respects to any of the imported article, and at about *one half the price*; it is carefully put up in convenient sized bottles, and is offered for sale by all the Druggists in the city, and at their Warehouse No. 69 South street, Baltimore.

ALMANAC.

1829. August.		Sun. Rises.		Sun. Sets.		Length of days.		Moon Sets.	
		H.	M.	H.	M.	H.	M.	H.	M.
Saturday,......	8	5	5	6	55	13	50	11	52
Sunday,........	9	5	6	6	54	13	48	morn	
Monday,.......	10	5	7	6	53	13	46	0	38
Tuesday,......	11	5	8	6	52	13	44	1	31
Wednesday,..	12	5	9	6	51	13	42	2	29
Thursday,....	13	5	10	6	50	13	40	3	33
Friday,.........	14	5	11	6	49	13	38	rises.	

Full Moon, 14th, 5 h. 19 m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

TOBACCO.—Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 5.00—red, 4.00 *a* 6.00—fine red, 7.00 *a* 8.00, for wrapping 5.00 *a* 10.00—Ohio, common, —— *a* ——.—good red —— *a* ——.—fine yellow —— *a* ——.—Rappahannock, 3.00 *a* 3.50—Kentucky, fine 4.00 *a* 5.00—wrapping, 4.50 *a* 7.00.

FLOUR—best white wheat family, $6.00 *a* 6.50*—superfine Howard-st. 5.25 *a* 5.37½; city mills, 5.00 *a* — Susquehanna, ——. CORN MEAL, bbl. 2.37½—GRAIN, best red wheat, new 85. *a* .90;—best white do. new 1.00 *a* 1.05; ord. to good, .70 *a* .80—CORN, white, .48 *a* .50; yel. .48 *a* .50—RYE, 52. *a* .55—OATS, .26 *a* .33—BEANS, 1.00 *a* 1.25—PEAS, .55 *a* .60—CLOVER SEED, 3.25 *a* 3.50—TIMOTHY, 2 *a* 2.50—ORCHARD GRASS, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a*.50 lb.—BARLEY, .45 *a*.50—FLAXSEED, 1.20—COTTON, Virg. .9½ *a* .10—Lou. .11 *a* .12—Alab. .9 *a* .10—Mississippi .10 *a* .12—North Carolina, .8 *a* .9—Geo. .9 *a* .12—WHISKEY, hhds. 1st pf. .23—in bbls. .24 *a* 25—WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—HEMP, Russia, ton, $225 *a* 230; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 3.75 *a* 4.00; No. 2, 3.50 *a* 3.75—Mackerel, No. 1, 6.50; No. 2, 6.00; No. 3, 4.50—BACON, hams, Baltimore cured, .10 *a* 11; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .29—Plaster Paris, cargo price per ton, $3.50, ground, 1.25 bbl.—Prime Beef on the hoof, $5.00 *a* $5.50.

* Six dollars and fifty cents by the single barrel, for Ellicotts' Patapsco white wheat family flour.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by JOHN D. TOY, corner of St. Paul and Market streets.

AGRICULTURE.

(From the New England Farmer.)

COL. PICKERING'S ADDRESS.

Delivered before the Essex (Massachusetts,) Agricultural Society.

The Society may recollect, that at its two last annual meetings, I expressed a desire to be released from the duties of President, in which I have been serving from its first institution in 1817. Yielding, however, to the requests of members, I have continued in that situation. But at the late meeting of the trustees, I informed them of my positive determination to be no longer a candidate for the office.

Having come to this determination, I had concluded, on taking leave, to present to the Society a short address. But if I had contemplated making a formal discourse, circumstances since occuring would have prevented my making it. I can now offer only a few desultory observations.

1. Within my memory, the ideas generally entertained of the occupation of the husbandman, appear to me to have materially changed. It has ceased to be considered as an employment adapted only to that portion of society which was to consist of mere labourers. It is now deemed an honourable pursuit, by engaging in which, no man, however elevated may have been his birth or station, feels himself humbled, in partaking of its labours. On the contrary, men of the learned professions—others who inherit fortunes, or who have acquired them by their own industry in other employments, now not unfrequently engage with zeal in the business of the practical farmer; and with useful emulation, they strive to excel in their new occupation. This, it is true, does not yield them profits like their former pursuits, which, indeed, they neither expect nor desire; but are content if they sustain no loss; while their improvements, effected by more ample pecuniary means, and proving what is practicable, present useful examples to their neighbours, who, bred to husbandry, and constantly present at every operation, and diligently labouring with their own hands, will render such improvements more profitable than they were to those who introduced them.—The change of public sentiment is auspicious to the farming interest.

2. I may here mention another source of improvements in husbandry—the mutual communications of valuable discoveries and useful practices. These may be most conveniently made to the trustees by the members of the society; for the business of the annual meetings will not admit of making such things known in conversation. If all the members were to write in detail their several practice, in every branch of husbandry,—in the management of their tillage land—their mowing grounds—their pastures—their live stock—their manures, &c. and hand them to the trustees, to be examined and compared,—it is probable that in the main the practices would be substantially similar; but at the same time I have no doubt there would be some variations well worth knowing; besides some new practices, and some new tools, or new forms of old ones, and some easier modes of operating to produce the same effects. All these matters may be selected and arranged by the trustees, and communicated to the whole society at its annual meetings.—However small some of the improvements might be, yet they must be worth knowing, *because they are improvements*. Let me give an instance of what some may think a trivial matter.

When living on my farm, some fifteen or twenty years ago, my potatoes were dug up with common hoes, according to the usual practice; but observed that many were cut with the hoes, and soiled. It then occurred to me, that instead of a continued blade, four or five long teeth, or tines set to the handle just as the blade of a hoe was set, would turn out the potatoes, not only without cutting them, but with greater ease and despatch. I had such a tool made--and then a second; for it fully answered my expectation.—The potato tops, or vines, being pulled up and laid aside, two strokes of the tool thrust in under the potatoes, then raising it, and with a short sweep, throwing the earth and potatoes once to the right and once to the left, would bring up and display nearly all the potatoes in a hill. The blade of the New England broad hoe is eight or nine inches in length, on its edge, and five or six inches broad, from the edge to the handle. Five tines, seven inches long, and the two outer ones eight inches apart, will give the proper dimensions to the potato hoe, or crome.* The eye for the handle should be rather larger than that of a common hoe, and of greater length, to admit a bigger handle, which will also add to its durability. A few years afterwards, I saw, somewhere, a tool of the same form, for the same purpose. The same tool is far better than a hoe for levelling heaps of gravel, on the highways or elsewhere.

Such mutual information as I have here recommended, is a species of charity or benevolence: I may therefore say, on high authority, "To do good and to communicate forget not."

3. I will make some remarks on the construction of ploughs.

It is not so much the *weight* as the *shape* of a plough which makes it of easier or harder draft: and this depends chiefly on the mould board.

Forty years ago, I had a farm in Pennsylvania, part of which was rich bottom land—the same which in New England is called intervale. Part of this was in a state of tillage when I bought it. I had a good Pennsylvania plough, of the fashion of that day, but the mould board was hollow breasted; and the rich soil, being moist, would fill up the hollow, and there remain, clogging the plough. But I observed that the earth thus lodged formed a straight line from the point of the mould board to the overhanging upper corner at the tail; and it then struck me, that this straight line should be given to the mould board itself; and be the guide to the ploughwright in forming the curvature or winding of the mould board.

A few years afterwards, returning to live in Philadelphia, I called one evening to see the Vice President of the Philadelphia Society of Agriculture; when he presented to me a small model of a mould board, which Mr. Jefferson (then Vice President of the United States,) had left with him. At the first glance of my eye, I saw the straight line above described; and stretching a thread from the fore point of the mould board to its upper corner behind, I found it touched it, in its whole length, in a perfectly straight line.

Speaking of it afterwards to Mr. Jefferson, he told me that he had communicated a description of it to the American Philosophical Society, who had published it in the fourth volume of their transactions. There the manner of forming the mould board out of a piece of squared timber is minutely described. But the simple rule may be as follows: Having fixed the straight line, above mentioned, by one cut of a saw from the upper corner of the mould board behind to its point forward,—cut away the wood above and below that line in such manner, that when finished, if you carry a straight rule from the fore to the hind part, keeping it all the way at right angles with the straight line, it shall touch the face of the mould board, in its whole breadth, in straight lines, through its entire winding, and so that its upper corner behind shall overhang the lower sufficiently to effect a complete turning of the furrow slice. Such a mould board can never get clogged; and the plough will move through the earth with less resistance than with a mould board of any other form. A few years ago I saw at Brighton a plough with a mould board very nearly in the form here described.

4. This Society have formerly offered premiums for the best management of manure. There can be no question, that if kept under cover, not unnecessarily exposed to the open air, and completely sheltered against rain, manure will retain more strength, and the same quantity fertilize a larger quantity of land. But another immense increase of manure will be obtained by conducting the urine of cattle, while they are kept in stables, to large quantities of earth collected (in this climate) into cellars, among which the urine shall run and be absorbed. Accurate experiments during ten years, by a farmer in Scotland, proved, that the dung of a number of cattle, carefully preserved by itself through the winter, furnished no more manure than the urine of the same cattle conducted over and absorbed by an equal bulk of common surface earth; the latter, load for load, being equally fertilizing with the dung.

5. A correspondent of a distinguished agricultural society in England, stated that he had made accurate experiments to ascertain the effect of cutting hay into very short pieces (whence it is called *chaffing* it,) and he found it a great saving of fodder; the hay so chaffed keeping his horse in as fine order as a much larger quantity given them uncut. A question has been asked—what causes this difference? The answer I have seen given was, that being chaffed it was more easily and perfectly digested. This is probably the true solution; and the effect would be more manifest in horses than in cattle and sheep which chew the cud. A celebrated English writer, treating of the rumination of some animals (their chewing the cud;)—and having spoken of a juice in the stomach called the gastric juice, of wonderful power in the digesting of their food, makes the following remarks:—

"It appears from experiments, that the gastric fluids, of sheep, for example, has no effect in digesting plants, unless they have been previously masticated [chewed;] that it only produces a slight maceration [softening] nearly as common water would do in a like degree of heat; but that when once vegetables are reduced to pieces by mastication, the fluid then exerts upon them its specific operation. Its first effect is to soften them, and to destroy their natural consistency; it then goes on to dissolve them; not sparing even the toughest parts." The inference from this doctrine is, that cutting fodder into fine parts will facilitate the maceration, mastication, and dissolution of the fodder; and consequently the preparation of its nutritive elements for admission into the numberless minute vessels destined to absorb and convey them through the whole system for the nourishment of the animal.

6. If my recollection be correct, the Trustees of the State Society of Agriculture, have repeatedly offered premiums for the best experiments to ascertain the most eligible season for laying lands down to grass. Without having made any experiments expressly for that purpose, I will mention some facts which may contribute to settle the question.

When I purchased a farm in Pennsylvania, at the time before mentioned, it was deficient in hay. Some acres of the bottom land were in tillage; but there being no crop on the ground, it was ploughed, harrowed, and sowed with herds grass (there called timothy) and clover seeds, about the 15th or 20th of September. The seeds were well put in by an old and experienced farmer. The next summer I had a full and clean crop of excellent hay. But here and there was a very small strip entirely destitute of grass plants; and in their place was a full crop of weeds; a strong wind now and then preventing the hay seeds reaching their destined east. But throughout the rest of the ground, the herds grass, and clover having attained to some strength in autumn, had full possession of the ground; and renewing their growth in the spring, before the seeds of annual weeds had time to vegetate, kept that possession completely, and produced a clean crop of hay.

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* Crome is a word used in some parts of England, for the tool of two or three tines, with which manure is hauled out from a cart; thence sometimes called, in this country, a dung drag.

I will now mention the constant and successful practice of Capt. Ichabod Nichols, of Salem, who has made a very productive farm among the rocky hills and valleys on the land of the Salem turnpike, immediately westward of the town. Having dug up and cleared it of the movable rocks and stones, he ploughed and planted piece after piece, with Indian corn and potatoes; and as soon as the natural growths were subdued, laid the same down with herds grass; always sowing the seed in autumn; and invariably getting clean and large crops of hay the next summer. Sometimes he sowed the grass seed so late that it did not germinate until the spring; but being duly deposited, it was ready to start with the first warmth of the season, before the germination of the seeds of weeds; and when the ground would be too wet to touch it with the plough. It is only thirteen years since Mr. Nichols began to cultivate this land; and in the present very productive year for hay, he has cut upwards of ninety tons. It is true that he has possessed an advantage within the reach of very few farmers—an ample supply of manure from stables in Salem; in addition to that made on the farm by his four working oxen, a bull, a horse, and thirty-five milch cows; all the hay and other fodder being consumed on the farm. It is a milk farm for supplying inhabitants of Salem. The grounds having received the manure with the tillage crops, it was, of course, thoroughly incorporated; and his purchased manure had so much clover seed mingled with it that he found it was not necessary to sow any with his herds grass. His constant practice of introducing his manure with his tillage crops, corresponds with the ideas I have formerly suggested; to wit,—that upland grounds in grass for mowing should never receive top dressing of *dung*—because a large (perhaps the greater) part of its fertilizing elements would evaporate and be lost in the air, and that such top dressings should be confined to moist grounds—too moist to be broken up by the plough, after having been once subdued and well laid down.

The general practice, however, from time immemorial, has been to sow grass seeds in the spring, with barley, or other small grain; and if the preceding tillage crops have brought the ground into a clean condition, the practice is known to be commonly successful; especially with *clover*, a plant whose tap root penetrates to a considerable depth, and thus secures it against the effects of the harvest sun of July, upon losing the shelter of the grain crop. But herds grass and other fibrous rooted grass plants, with very slender blades, not unfrequently perish. On my farm in Pennsylvania, one year, herds grass seed was sown with oats, of which there was a good crop; and the grass had taken well; but upon harvesting the oats, the tender grass plants, exposed to the burning sun of July, were all destroyed. The like disaster, I presume is sometimes experienced here, a degree and a half farther north.

I am therefore inclined to think, that all spring grain had better be sown by itself; and that after harvest, the stubble and weeds, constituting, in fact, a light coat of manure, should be ploughed in, and the grass seed then introduced. This manuring, I am satisfied, would amply compensate for the expense of extra ploughing. It would be desirable that this operation should take place before the weeds growing among the stubble ripen their seeds.

The ease with which the seed of herds grass is saved, and its cheapness when purchased, together with the good quality of the hay, have led to its general cultivation: but every farmer knows, that unless the ground be rich and moist, it yields no grass for a fall pasture; while other grasses quickly throw up a second crop.

There is another grass in our country which in some parts of it is cultivated to great advantage. It makes good hay—equal I believe to herds grass—and like spire grass, springs again as soon as the first crop is taken off. And the seed, it appears to me, is saved with as much ease as the seed of herds grass. It is four or five years since I introduced it on my farm; and its present occupant esteems it highly. I recommend it to the farmers of the county; and that it be sown by itself, without any clover seed: for as the clover fails after the second year, naked spaces are thereby left; and then the grass grows in tufts, instead of completely covering the ground. Orchard grass seed is at present dear; but when generally cultivated, it might become as cheap as the seed of herds grass.

A roller is deemed, in England, a necessary instrument of husbandry; and it is in use among some farmers in the United States. From my own experience I strongly recommend it. Mine may perhaps be thought a heavy one; but it is not too heavy. It is of solid white oak, about seven feet long; and twenty or more inches in diameter.—After small grains, or hay seed, are sown and harrowed in, rolling presses the earth close about them—drives in all the small stones—and in grass crops forms a smooth surface for the scythe. If ground is in a proper condition for receiving the seed—neither too wet nor too dry,—that is in a friable mouldering state—the surface of the ground will not be pressed so hard as to prevent the germination of the seeds; on the contrary, they will spring and take root more successfully. If small grain, as wheat, barley, or oats, are merely harrowed a multitude of grains will lie loose and naked on the surface, to be picked up by birds, or parched and ruined by the sun. ☞ Any stones on the ground too big to be pressed fully in by the roller, ought to be previously picked up and removed.

7. Millet gives excellent hay; and the straw, after the seed is ripe and threshed out, furnishes a very palatable food for cattle—very far superior to any other straw. But to obtain a full crop of millet, to rise as high as three or four feet, the ground must be rich, and in fine tillage.

8. Every one knows that swamps, where there is a depth of soil, or mud, if laid dry by ditching, yield great crops of hay. It has been a practice with some farmers, besides ditching, to cover them with a considerable coat of gravel or sand: but if they admit of being thoroughly drained by ditching, I would never carry on gravel or sand—absolutely barren substances.

On this article, I again refer to Capt. Nichols. He confines himself to ditching; and has rendered his swamps dry enough to yield great crops of herds grass hay. But he takes care, every year, after his hay harvest, to cleanse his ditches, that the water may run off freely; otherwise its current would be obstructed by the grass which springs up in them—especially in the small ditches.

9. Many years ago I became satisfied that the hilling of Indian corn was at least useless; I was rather inclined to think it injurious. The roots, if not interrupted, will spread from hill to hill; but by hilling, the loose soil is scraped from the intervals, and heaped up about the stems of the plants. Doubtless the roots, after this, will endeavour, by new shoots, to regain their natural depth; but for this end they must encounter harder ground, and so be checked.

In Pennsylvania, it is a common practice to plant corn in continued rows, with intervals of about five feet between the rows, to admit of a more free cultivation with the plough and harrow; while the plants are at small distances in the rows. At the last dressing, the surface of the ground is left level. One acre laid off to be cultivated in hills four feet apart, would give 2700 hills; and with four plants in a hill, the whole number would be ten thousand eight hundred.—An acre laid off in rows five feet apart, and set with two plants at every eighteen inches distance, would give 11,600 plants—that is, 800 plants more than the acre with hills.

For the neat culture of Indian corn, the grains when dropped should be regularly arranged; but as commonly dropped, many grains are scattered, and in that situation grow up—to be afterwards torn away by the plough and corn harrow; or, to save them, balks are left, which require more labour with the hoe. Last year, visiting a farm a few miles from Philadelphia, I there saw a tin tube about three feet and a half long, with the top flairing or spreading a little like a trumpet; which being moved from spot to spot, the corn was dropped through it, and laid just where it was wanted, with perfect regularity.

The great value of Indian corn stalks, in their green state, for feeding cattle, milch cows especially, I have formerly mentioned. That which is planted early for this use, will be ready for cutting just when, in our common summers, the pastures begin to fail. Land that would yield fifty bushels of ripe corn to the acre, if cut close to the ground at the time the ears are well set, (at which time I suppose it has attained its highest growth,) would give ten tons of the green fodder, of which 75 lbs. would give a full daily supply, for a common sized cow, if she ate nothing else: and at this rate, one neat ton (now taken at 2000 lbs.) would keep four cows two months: but if they gleaned half their food at pasture, the ten tons would keep eight cows in full milk, for two months—say August and September. But to have this fodder through that time, in its green and most juicy state, it should be planted at different times; so that the latest planted should attain its proper growth by the middle of September, and continue till the frost, which is frequent at the close of that month, or the early part of October. Where the corn is intended to stand for a ripe crop of grain, the green tops may be cut for green fodder, as soon as the fine dust (the farina) falls from the tassels on the silk of the ears: for every thread of that silk is attached to a grain of corn in the ear, and is the medium of impregnation. Without that dust so applied, there would be a cob and husks for the several grains, but no meal.

10. I have two or three observations to make respecting milch cows. Every farmer knows that they sometimes slink their calves; and it is said that a miscarriage once occurring, is likely to be repeated. This has happened to a very promising heifer of my own. When near two years and a half old, well grown, (as big as cows in general, though of our native breed)—in full health, and fleshy even to fatness, she slunk her calf, which was so young as to be destitute of hair. However, she was regularly milked, twice a day, giving at first only half a pint at a milking: but her bag and teats gradually increased in size; and her milk, from half a pint to two quarts at a milking. Having taken bull she continued to give four quarts of milk daily; at the same time laying on so much additional flesh and fat that she would have made fat beef. In this healthy and active condition, at the end of six months and a half from the time she took the bull, she dropped another dead calf—large for the time, and covered with hair. Being milked as usual, she continued to give about four quarts a day, for a few days, and then rapidly increased the quantity to seven quarts a day. Her pasture was good. The milk all the time was perfectly sweet—not in the least changed by calving. She continued well and active, and retained her fat and flesh. I was a little concerned about her *cleaning* the discharge of the

secundine, or after-birth—but this came away by degrees.

Cases of this kind may be well known among farmers: but I have mentioned the matter for the information of some who may be as destitute of experience as myself.

I take this occasion further to notice the *cleaning*, or after-birth, about which I have understood that different opinions have been entertained.—Some have thought that it should be carefully removed, and not suffered to be eaten by the cow that has just dropped a calf. For myself, while living on my farm, I chose that my cows should be allowed *to follow nature*, and eat their *cleaning*. It is evidently an instinct affecting them at that particular time, as really as the instinct of the calf, as soon as it is licked dry, and can rise and walk, prompts it to seek for the teats of its dam. It appears to know that they are under her belly, but not whether they are between the fore or the hind legs; and accordingly it seeks for them sometimes between the fore legs—until the experience of a day or two conducts it to the proper place.

Whether the *cleaning* eaten by the newly calved cow operates as a salutary article of food, or as a medicine, I am entirely satisfied that it should be considered as a specific, exactly adapted to her condition.

With these observations I must take leave of the Society; recommending a perseverance in its object; being fully persuaded of its utility thus far; and that by the attention of practical farmers, and their mutual, free communications, its usefulness may be continued and increased.

Sept. 25, 1828.

PASTURE.

An English writer recommends to mix a few sheep and one or two colts in each pasture for horned cattle. Another says "the following economical experiment is well known to the Dutch, that when eight cows have been in a pasture, and can no longer obtain nourishment, two horses will do very well there for some days, and when nothing is left for the horses, four sheep will live upon it; this not only proceeds from their differing in their choice of plants, but from the formation of their mouths, which are not equally adapted to lay hold of the grass. New grass, stocked very hard with sheep will unite and mat at the bottom, and form a tender and inviting herbage. In North Wiltshire, (famous for cheese) some dairymen mix sheep with cows, to prevent the pasture from becoming too luxuriant, in the proportion of about one sheep to a cow.

"The bottom of an old hay stack is estimated an excellent manure for pasture land, as besides the nourishment it affords, it contains a quantity of grass seeds, which furnishes a new set of plants. It should never be suffered to mix with manure for grain or corn lands, as it will cause them to be overrun with grass and other plants, which though useful in a pasture, are weeds in arable land."

STEEP FOR WHEAT.

We have heard a practical and judicious farmer recommend the following process as the best preparation for seed wheat. In order to destroy smut in the seed to be sown, 6 or 7 gallons of water will be wanted for 4½ bushels of seed, and from 2 lbs 6 ozs. to 2 lbs. 10 ozs. of quick lime, according as its quality is more or less caustic, or to the greater or less degree of smut in the grain. Boil a part of the water and slake the lime with it, after which add the remainder of the water. The heat of the whole of the liquid ought to be such as we can with difficulty bear the hand in it. Then gently pour the lime water on the grain, placed in a tub, stirring it without ceasing. The liquid should at first be three or four fingers' breadth over the wheat. Leave the grain to soak 24 hours, turning it five or six times, when it may be sown.

Grain limed by immersion does not incommode the sower, like that which is limed the ordinary way. The lime adheres like a varnish to the surface of the grain; its germination is quicker, and it carries with it moisture enough to develop the embryo; the wheat will not suffer for want of rain; inscets will not attack it, as they cannot bear the alkaline taste of the lime.

HORTICULTURE.

DISEASE OF SILKWORMS.

J. S. Skinner, Esq.

The following extract of a letter contains some hints that may be useful to those engaged in silk making. I have never observed the effect produced from feeding with young shoots, which Dr. Harden's experiments seem to assert, though I have not paid particular attention when feeding with such leaves. In the last age of the worms, I have long been aware that it was best to feed with firm mature leaves; and it seems reasonable that in damp sultry weather, this is particularly necessary. It is very possible that feeding with these very watery leaves may have entered into the combination of circumstances which caused the destruction of the Misses Waties' establishment; but I cannot think it was the exclusive circumstance. The tripes may be produced by a variety of circumstances in combination, or separately if excessive, as I remarked in my note to Mr. Rees' letter relative to the Misses Waties' establishment. Gideon B. Smith.

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The last Farmer informs me of the misfortune of the Misses Waties; I am really sorry for this, I have been nearly as much so in the small way. These failures throw back, I fear, the growth of silk considerably. I feel great interest in it; there are few, very few things, that I desire more than to see the United States a silk growing country. I think I know how I failed, and that another year I can succeed. I believe also that those ladies must have failed from the same cause, and I fear you have not given the best remedy (do you think this vain?*) As a medical man I am accustomed to investigate diseases and their causes, and although all I may say may appear old and common place to you, although you may know it incorrect, yet it is original with me, and I believe it true. It will cost you only the time of reading it, and if I suggest any thing of use it will be agreeable to me; if it is all error, no harm is done.

My negro man was always directed to climb on the tree, and break some top limbs for my silkworms, they died occasionally, but not more than I expected. One evening I sent a small boy, he brought the suckers from the roots of the tree instead of the top limbs; I thought I destroyed them in this way last year, and for fear gave them to the worms on one table only; they had been fed by putting limbs over them before, and were some higher and some lower among the limbs. The next morning I found the top worms all diseased with dysentary or diarrhœa; the next day they were nearly all dead, some were on the limbs looking just as before but dead, some had fallen down dead, and some very sick; in a little while the dead ones turned black and the smell was very bad, while the lower worms that had not eaten those leaves were as usual. This was, I presume, what you call the tripes. I now tried every means to see if I could make others that were healthy have the same disease, but they did not receive it, from which I think you must be correct in its not being contagious. The weather all this time was very wet, but the leaves dry. I now wished to try if I could not cure the disease with medicine, and procured some more suckers from the trunk of the tree and put them over another parcel, I soon had a great many dead and dying worms. I now proceeded to physic them; magnesia, vinegar, lime water, castor oil, laudanum, and many other things were put on the leaves for them to eat, but all in vain; from the time I could distinguish they were diseased, they would not eat any thing and all died. I now treated another parcel in the same way, and when sick tried to cure them by pouring hartshorn, laudanum, &c. near them, thinking the vapour might cure them, but all died; some of them appeared to have cholera morbus, vomiting a greenish bilious looking matter. During this time I fed some with dry leaves and some with wet leaves, that is, the limbs were put out in the rain several times, and while wet given to them. I did not see that they did any better on dry than wet leaves; they grew fast and looked well. The experiment of feeding with suckers was repeated over and over again, and always produced disease and death. I could, towards the last, pick out the sick ones before they showed any symptoms of disease, by a peculiar sensation they gave to my fingers—a kind of clammy sensation, in some slight degree resembling the sensation felt on applying the hand to a man who is near dead, when a death sweat is on him. In the mean time it became more rainy, rain fell every day, all of my worms began to show signs of sickness among them, some had began to spin, but many were dead and many sick. Reasoning from the fact that the suckers from the trees kiled them as I thought, from an over abundance of sap, it occurred to me that the continued rains gave a *sappy nature* to all the leaves; (during this time observe, they were not fed with leaves that had water on them;) I therefore kept the leaves till wilted before they were given to them, shut up the house tight, and burnt nitre in large quantities in the room, throwing away the dead worms; this cured those that were diseased, and stopped any more from becoming diseased, or I conceited so. I again began to feed on fresh gathered leaves, and all at once they began to die, and I think more than one half died; some had already made cocoons, some died as soon as they began to spin, some died before they were done; in fact they died in every possible stage, while I believe near one half of what was left passed from the worm to the next state without attempting to spin. Many of the latter were saved in hopes they would become butterflies, but not one did. I now attempted to wind my silk; some of the cocoons I could wind very easy, and the silk was very fine; I made some sewing silk which was very good; but by far the greater part could not be wound, the fibre would break constantly. I had to give it over, but as I could wind some very well and not others, it must be from a defect in the cocoons, I shall have them all spun on a wheel to make stocking yarn. Of those for eggs, a great many were saved; but not more than one half, if that, made butterflies; the rest after being kept a long time were cut open, when a little dried up mass was found instead of a butterfly; so that I am not well supplied with eggs for another year. I calculate on sending for more, and hope you have saved a good supply.* Of the eggs, before I expected, fifty or an hundred hatched, and were doing well, when some ants got among them, and in a very little while destroyed them. I am now trying to get some more hatched, but I fear they will not. Now, from this statement I infer, that water on the leaves does not *certainly* kill them, if it does at all; that the shaded watery leaves from the suckers, that leaves that grow in wet places, or leaves gathered in long spells of wet weather, although they may be dry, all are of a crude and sappy nature, producing disease and death among silkworms; and that leaves thus gathered, although they may not kill immediately, exert a deleterious influence, causing the worm to pass to its next state without spinning at all, or spinning imperfectly in quantity and quality, or perishing while in the cocoon. The remedy appears to me to be—use no leaves from the *suckers* of any part of the tree, more especially if the time is rainy; never to gather the leaves soon after a rain, although they may be dry; in spells of wet weather to keep the leaves until they are *wilted*,[*] that this watery state of them may be changed, believing the water on them to be of little consequence, but an excessive quantity of sap in them fatal; in rainy times to gather the leaves from the tops of the trees, and when the disease begins to show itself to give only such leaves as are wilted.

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* No, indeed.—G. B. S.

* I have indeed a good supply of eggs, of four different kinds of worms, among the most valuable of which are those of the *white worm*, the cocoon of which is of a snowy whiteness—and shall take pleasure in supplying my friend.—G. B. S.

THE LACHRYMA GRAPE.

Extract from Bolling's "Sketch of Vine Culture," Chap. 20th. "Why the Lachryma Grape is thought a proper one for Virginia."[†]

"Having in a former publication signified a wish that the Greek, or Lachryma, Grape might be imported from Naples, it might be asked how, consistently with the above principles, that grape can be thought a proper one for Virginia, which, although exceedingly sweet and luscious, does not ripen, even in that hot country, until the last of October? I shall endeavour to give a reason for the apparent contradiction.

"The maturity of fruits is not effected without a certain degree of fermentation. It follows then that while a fruit is ripening it suffers a constant release and subsequent fixation of air—great perspiration, great internal commotion. Whatever body is penetrating in its nature and disposed to fix air, altogether prevents, if in a very large quantity, and retards, if in a smaller, that process, the result of which is a perfect maturity.

"Sulphur is a body extremely subtile, penetrating and of a nature to fix air in a very high degree: witness the quantity which bursts from a firelock when suddenly rarified and returned, by fire, to its elastic, from its fixed state, in the gunpowder: witness that two or three little sulphur matches, lighted and put under a cask, will stop the fiercest fermentation by fixing the air of the vegetable fluid within: witness that, when wine is racked off from one cask to another, no second fermentation speedily arises if the recipient be well fumigated with sulphur.

"The above conceded (and I believe it will not be denied) let it be remembered, that the soil, in which the Lachryma vine grows, is, perhaps, as sulphureous as any cultivated on the globe. The solar rays darting thereon with intense heat, excite a vapour which retards the perspiration and internal commotion, and, of course, the maturity of its fruit—it is even strong enough, sometimes, to destroy vines and other vegetables altogether, by a total stoppage of all their functions. It follows then, that in a colder country less abundant in sulphur than the kingdom of Naples, and the regions of Vesuvius, the same grape might attain an earlier maturity.—How much more in Virginia, whose summers, while they last, are as hot, perhaps, as those of Naples or almost any other country?

Moreover, it is probable that the juices of plants in the course of their circulation, undergo successive fermentations, by which they are properly percolated for their entrance into the fruit. This is mere hypothesis, but it is certain, if it be true, that all those processes must be retarded by the sulphureous vapour above mentioned; to which they would not be liable in Virginia.

"If it be suggested, that the sulphur may yet be necessary to give that grape the particular qualities it has? It is answered, that all its defects are ascribed to sulphur; that it is not entirely desirable to have it exactly as it is, but with a diminution of its sweetness, of its tenacious consistence, and of the heaviness of the wine it produces, which is so great, that the citizens of Naples, who always drink it new (age correcting its defects,) never use it unmixed with water."

GEORGIA GINGER.

A specimen, says the Savannah Georgian, of the growth of native Ginger, has been left with us by Mr. Raiford, who has raised it successfully for four years past, on common land, and exposed to all the variations of our climate. That in our office was planted in February last, is now in full vigour and luxuriance, and in a few weeks would ripen. From several experiments made in its culture on a small scale, it might, it is thought, be made a profitable article, considering the demand for it.

POTATO FARINA.

The farina obtained from potatoes is now an article of commerce in Scotland, where very fine samples of it are brought to market. It is stated to be quite equal to genuine arrow-root, and is sold at about half the price of that preparation. Mixed with wheaten flour in the proportion of one-third, it is a great improvement to household bread, and is light of digestion. Sir John Sinclair's mode of preparing the farina is perhaps generally known; but the following short account of the process for domestic use may not be uninteresting:—Into a pail of clean water place a fine colander or coarse sieve, so that it may be two inches in the water; grate the potatoes, when pared, into the colander, taking care from time to time to agitate the pulp in the colander, so that the farina may fall to the bottom of the pail. When the fibrous part which remains in the colander, or sieve, has accumulated so as to impede the washing of the farina into the pail, remove it. About one gallon of potatoes is sufficient for a pail of water. After the water has remained in an undisturbed state for 12 hours, pour it off—the farina will be in a cake at the bottom. It is to be dried slowly before the fire, being rubbed occasionally between the hands, to prevent its becoming lumpy, and it is then fit for use. The French prepare an extract from the apple in the same way; but this is expensive, as the farinaceous part of the apple is very small.

ALABAMA SILK.

We received by the last mail, enclosed in a letter from a friend, a skein of beautiful silk, a sample of about twenty-five lbs. grown and manufactured this season on the plantation of Dr. Purnell, of Greene county. It is equal in strength, quality, and appearance to any we have seen, the growth of this country, and is inferior only to the best Italian silk. We are happy to learn that the Doctor has made extensive arrangements for its cultivation next season, and he expects to manufacture several hundred pounds for market. [*Mobile Reg.*

Dr. Le Conte, of New York, is engaged with some of the Parisian savans, in preparing a scientific work on Caterpillars, in the study of which he has passed thirty years of his life.

INTERNAL IMPROVEMENT.

(From the New-York Journal of Commerce.)

STEAM-BOATS.

Capt. M'Konochie, of the Royal Navy, has published in the Edinburgh New Philosophical Journal for April, an elaborate article on the use of steamboats for the transportation of merchandise. He remarks that the great objection, to the present mode of applying steam to this purpose, are its inordinate expense, and the little stowage left for goods, even in the largest steamboats. To obviate the former difficulty, he purposes an abatement in the speed with which they are usually propelled. The resistance to a vessel passing through the water, and the expense by which that resistance is overcome, being nearly as the *cube* of the speed obtained, he deduces the following results, which illustrate the principle in a very forcible manner:

3 Miles per hour,	5½ Horses.
4 ———	13 ——
5 ———	25 ——
6 ———	43 ——
7 ———	69 ——
8 ———	102 ——
9 ———	146 ——
10 ———	200 ——

Supposing these calculations to be correct, it follows that the amount of power necessary to propel a boat at the rate of ten miles an hour, is *eight times* as great as is required for half that speed, and more than *thirty-six* times as great as is required for the rate of three miles an hour. But as, at a given rate of progress, the resistance will vary from hour to hour according to the weather, Mr. M'K. recommends that steamboats for the transportation of merchandise, should be fitted with three or four small powers, arranged in such a manner that one or more may be applied, as the exigencies of the case require.

In the next place he remarks, that where economy is studied, steamboats should tow, and not carry: because in the other case, the engine takes up so much room, that the remaining capacity, however filled, can never defray the expense, or yield any return: and also, because "there appears to be something in the principle of traction, favorable, wherever it is applied, to the transportation of heavy burthens. A horse will draw more than he will carry. A locomotive engine of only eight horse power, drags ninety tons after it, and cannot stir with even a half of that weight above it. It has been ascertained in river navigation, that one third of the power will track a vessel, at a given rate, against the stream, that is necessary to impel her at the same rate, if embarked on board. And every seaman who has sent his boat a-head to tow in a calm, must have been sensible that the same power employed on board, would not have produced the same effect."

Where voyages are long and sea-room abundant, Mr. M'K. does not think it advantageous to employ steam at all, except to meet occasions of long protracted calm, or to assist a ship's boats when employed in unfavorable circumstances. For this purpose he recommends that a small power be taken on board, say of two, four, six or eight horses, according to the size of the ship, together with a boat fitted to receive it, to be employed in towing as occasion may require. Such an addition to a ship's stores, he says, would be repaid in a single voyage, if bound within the tropics, where calms are frequent and boat-service severe; and where navigation is intricate, would be equal to an insurance. To illustrate the impolicy of using steam-vessels properly so called, for long voyages, he mentions the fact that the steamer Enterprize was three days longer on her voyage to India, than the ship Betsey, from Bordeaux, which sailed about the same time.

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[*] *Wilted.* This term is little understood south of the Delaware river. But there is no other of equivalent meaning. We do not mean *withered*, when we say wilted; but that soft flabby state to which leaves are reduced after having been sometime gathered. The *wilted* state precedes the *withered*—the two terms may be considered analogous, the one to *hunger*, and the other to *death* by *starvation*.—G. B. S.

[†] It would, no doubt, answer still better in more southern regions.

LADIES' DEPARTMENT.

CONRAD LEAVING MEDORA.

[We promised in our last to give the final parting scene between Conrad and Medora in Byron's Corsair. To render the sense more complete, we begin with the two last lines of the former quotation.]

"But—Oh, Medora! nerve thy gentler heart,
This hour again—but not for long—we part."

"This hour we part!—my heart foreboded this:
Thus ever fade my fairy-dreams of bliss.
This hour—it cannot be—this hour away!
Yon bark hath hardly anchored in the bay:
Her consort still is absent, and her crew
Have need of rest before they toil anew;
My love! thou mock'st my weakness; and would'st steel
My breast before the time when it must feel;
But trifle now no more with my distress,
Such mirth hath less of play than bitterness.
Be silent, Conrad!—dearest! come and share
The feast these hands delighted to prepare;
Light toil! to cull and dress thy frugal fare!
See, I have pluck'd the fruit that promised best,
And where not sure, perplex'd, but pleased, I guess'd
At such as seemed the fairest: thrice the hill
My steps have wound to try the coolest rill;
Yes! thy Sherbet to-night will sweetly flow,
See how it sparkles in its vase of snow!
The grapes' gay juice thy bosom never cheers;
Thou more than Moslem when the cup appears:
Think not I mean to chide—for I rejoice
What others deem a penance is thy choice.
But come, the board is spread; our silver-lamp
Is trimm'd, and heeds not the Sirocco's damp;
Then shall my handmaids while the time along,
And join me in the dance, or wake the song;
Or my guitar, which still thou lovest to hear,
Shall soothe or lull—or, should it vex thine ear,
We'll turn the tale, by Ariosto told,
Of fair Olympia loved and left of old.
Why—thou wert worse than he who broke his vow
To that lost damsel, shouldst thou leave me now;
Or even that traitor-chief—I've seen thee smile,
When the clear sky show'd Ariadne's Isle,
Which I have pointed from these cliffs the while:
And thus, half sportive, half in fear, I've said,
Lest Time should raise that doubt to more than dread,
Thus Conrad, too, will quit me for the main:
And he deceived me—for—he came again!"

"Again—again—and oft again—my love!
If there be life below and hope above,
He will return—but now, the moments bring
The time of parting with redoubled wing:
The why—the where—what boots it now to tell?
Since all must end in that wild word—farewell!
Yet would I fain—did time allow—disclose—
Fear not—these are no formidable foes;
And here shall watch a more than wonted guard,
For sudden siege and long defence prepared:
Nor be thou lonely—though thy lord's away,
Our matrons and thy handmaids with thee stay;
And this thy comfort—that, when next we meet,
Security shall make repose more sweet:
List!—'tis the bugle—Juan shrilly blew—
One kiss—one more—another—Oh! Adieu!"

She rose—she sprung—she clung to his embrace,
Till his heart heaved beneath her hidden face.
He dared not raise to his that deep-blue eye
Which downcast droop'd in tearless agony.
Her long fair hair lay floating o'er his arms,
In all the wildness of dishevell'd charms;
Scarce beat that bosom where his image dwelt
So full—*that* feeling seemed almost unfelt!
Hark—peals the thunder of the signal gun!
It told 'twas sunset—and he cursed that sun.
Again—again—that form he madly press'd;
Which mutely clasp'd, imploringly caress'd!
And tottering to the couch his bride he bore,
One moment gazed—as if to gaze no more;
Felt—that for him earth held but her alone,
Kiss'd her cold forehead—turn'd—is Conrad gone?

"And is he gone?"—on sudden solitude
How oft that fearful question will intrude?
"'Twas but an instant past—and here he stood!
And now"—without the portal's porch she rushed;
And then at length her tears in freedom gush'd;
Big—bright—and fast, unknown to her they fell;
But still her lips refused to send—"Farewell!"
For in that word—that fatal word—howe'er
We promise—hope—believe—there breathes despair.
O'er every feature of that still, pale face,
Had sorrow fix'd what time can ne'er erase:
The tender blue of that large loving eye
Grew frozen with its gaze on vacancy,
Till—Oh, how far!—it caught a glimpse of him,
And then it flow'd—and phrenzied seem'd to swim
Through those long, dark, and glistening lashes dewed
With drops of sadness oft to be renew'd.
"He's gone!"—against her heart that hand is driven,
Convulsed and quick—then gently raised to heaven;
She look'd and saw the heaving of the main;
The white sail set—she dared not look again;
But turn'd with sickening soul within the gate—
"It is no dream—and I am desolate!"

[Hearing of his capture, confinement in chains, and probable death by lingering torments, she dies of a broken heart—he escapes—returns—flies to her chamber and there finds her a recent corpse in the habiliments of the grave.]

His steps the chamber gain—his eyes behold
All that his heart believed not—yet foretold!

He turn'd not—spoke not—sunk not—fix'd his look,
And set the anxious frame that lately shook:
He gazed—how long we gaze despite of pain,
And know, but dare not own, we gaze in vain!
In life itself she was so still and fair,
That death with gentle aspect wither'd there;
And the cold flowers her colder hand contain'd,
In that last grasp as tenderly were strain'd
As if she scarcely felt, but feign'd a sleep,
And made it almost mockery yet to weep:
The long dark lashes fringed her lids of snow,
And veil'd—thought shrinks from all that lurk'd below—
Oh! o'er the eye death most exerts his might,
And hurls the spirit from her throne of light!
Sinks those blue orbs in that long last eclipse,
But spares, as yet, the charm around her lips—
Yet, yet they seem as they forebore to smile,
And wish'd repose—but only for a while;
But the white shroud, and each extended tress,
Long—fair—but spread in utter lifelessness,
Which, late the sport of every summer-wind,
Escaped the baffled wreath that strove to bind;
These—and the pale pure cheek, became the bier—
But she is nothing—wherefore is he here?

He ask'd no question—all were answer'd now
By the first glance on that still—marble brow.
It was enough—she died—what reck'd it how?
The love of youth, the hope of better years,
The source of softest wishes, tenderest fears,
The only living thing he could not hate,
Was reft at once—and he deserved his fate,
But did not feel it less— * * *

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"Tis morn—to venture on his lonely hour
Few dare; though now Anselmo sought his tower.
He was not there—nor seen along the shore;
Ere night, alarm'd, their isle is traversed o'er:
Another morn—another bids them seek,
And shout his name till echo waxeth weak;
Mount—grotto—cavern—valley search'd in vain,
They find on shore a sea-boat's broken chain:
Their hope revives—they follow o'er the main.
'Tis idle all—moons roll on moons away,
And Conrad comes not—came not—since that day:
Nor trace, nor tidings of his doom declare
Where lives his grief, or perish'd his despair!
Long mourn'd his band whom none could mourn beside;
And fair the monument they gave his bride:
For him they raise not the recording stone—
His death yet dubious, deeds too widely known;
He left a Corsair's name to other times,
Link'd with one virtue and a thousand crimes.

SPORTING OLIO.

(Items from late English papers.)

Bull Baiting.

Mr. C. Pallmer moved for leave to bring in a bill to extend to bulls the same protection which the Legislature afforded all other animals.—Mr. R. Gordon doubted very much the propriety of calling upon the House to legislate on an abstract principle, unless the Honourable Member for Surry was able to state some cases of the abuses which arose from the present state of the law. In his opinion there were few or no cases of cruelty practised on bulls in the present day.—Mr. Secretary Peel thought that if the Hon. Member for Surry was consistent, he ought to go much farther, and extend his protection to bears and badgers as well as to bulls. He doubted whether the bill ought not to extend to cock-fighting. If they admitted the principle in one individual case, session after session the house would be called upon to pass an act to prevent some sort of cruelty to one class of animals or another. Animals would have a very halting case for the house. He would not go so far as to prevent the Hon. Member's bringing in the bill; but the house ought to make legislation co-extensive with the principle of the bill.—The house then divided. Against the motion, 73; in favour of it, 28: majority against it, 45.

To the Editor of Bell's Life in London:

Sir,—Please to insert in your paper of Sunday next, that I will run Metcalf, one mile for 100*l.* if he wins his approaching race; or I will run the other man, if he wins, for the like sum. I hope my challenge will be accepted, for I mean running, and not chaffing. Richard Drinkwater.

Harpurhey, near Manchester, May 20.

P. S. I have a dog of the name of Billy that is open to fight any dog of 33lb. weight, for 20*l.*, and will meet to make a match at any house that may be appointed.

Thomas Richardson will be prepared to make a match with Ned Murphy, for 10*l.* a-side, at the Yorkshire Stingo tap, on Wednesday evening next.

Raffle.—Scroggins has announced that his appetite is to be raffled for, on Friday evening, at the Gridiron and Bullock's Kidney, Digestion-alley, Moorfields. There are to be sixteen members, at a quartern loaf each; the winner and setter-up to stand two pounds of beaf steaks and a peck o'tatys. The appetite may be seen at the bar, any day before the raffle. It is warranted equal to an eight pound leg of mutton and trimmings.

Canine Fancy.—On Tuesday last, at Roach's pit, a grand fight took place with the Clerkenwell dog and the Yorkshire dog, which lasted one hour and ten minutes; a well-contested battle; the odds at setting to were 5 and 6 to 4 on the Clerkenwell dog; and after fighting 40 minutes, 5 to 1 was laid on "Yorkshire." The fight terminated in favour of the Clerkenwell dog.

On Thursday next, at the same pit, Young Captain and the Yorkshire dog will contend for 20 sovereigns, from the scratch, at 34½lbs each. Roach has got a 45lb. dog, to fight any dog of the weight, from 10 to 50 sovereigns aside. The money will be ready at his pit any night during the week, from 7 to 10.

Metcalf and Jenkins.—The last deposit of 100*l.* for this race of four miles, will be made good on Tuesday, the 26th instant, at Mr. Shirley's, New Inn, Staines, and the race will be decided at Staines, on Friday the 29th instant. Jenkins's friends are very sanguine, but Metcalf is the favourite. No doubt they are the two best four-mile men this country ever produced.

MISCELLANEOUS.

(From the United States Telegraph.)

WHITE MUSTARD SEED.

Having derived great benefit from taking the *White Mustard Seed*, I feel irresistibly impelled to publish what I *know* of its virtues, hoping that others may thereby be tempted to try it, and may experience, in like manner, its salutary effects. This publication may be the means of relieving *mony* fellow beings from extreme suffering; but should I hear of a single one, I shall be more than rewarded for my pains—I shall contemplate it with feelings which I would not exchange with the warrior monarch, who has desolated countries, and ruined the repose of thousands.

I will make a brief and simple statement of *facts;* and, to prevent suspicion of fiction, subscribe my proper name.

For more than *twenty-five years* prior to December, 1828, I had been subject to frequent and violent attacks of the *sick-headache*; sometimes two or three in the course of a month. I believe that I never escaped an attack longer than a month, except once, in summer, in the Western country, when I had nothing of it for about two months, during which time I slept in the open air in the woods, and travelled on foot every day eighteen to twenty-five miles. But the Mustard Seed are far preferable.

About the first of last December, Doctor Cooke's *Treatise on White Mustard Seed* falling into my hands, I was so struck with the force of his reasoning, that I resolved on giving them a *fair trial, according to his directions.* I did so: took the seed *four or five weeks, and have not had a spell of the sick-headache since.* In May I felt *symptoms* of an attack from my old enemy, but on having recourse to *Mustard Seed*, I checked his approaches *instanter.* I continued about a week fortifying my citadel with the same materials; and not having discovered any hostile movement since, I think I have no reason to apprehend an attack in future.

I know a young lady who has been cured of the same disease, by the same means.

One of my sisters whose liver was affected, took *Mustard Seed* and is well.

A gentleman (formerly a Surgeon in the Navy,) who was in the same house whilst I was under this *course of Mustard Seed*, was, on reading but a few pages of the treatise, inspired with faith enough to try the *seed* for *his* complaint. He had suffered for years with a severe disease of the stomach and viscera; and having tried without effect, almost every prescription, he had nearly concluded that his disease was irremediable. But he had not taken the *Mustard Seed* longer than two weeks when he declared himself *cured.* He said that he had not known a well day prior thereto, for *six years*—and added, that the Mustard Seed *acted like magic.* He took them in moderate doses, *in molasses.*

Very few persons find any difficulty in taking them; though they must be swallowed *whole—three times a day*, and usually from *two* to *four teaspoonsfull at a dose.* They should be taken an hour *before breakfast*,—an hour AFTER *dinner*, and the third dose an hour BEFORE *going to bed.* Persons who dine later than 4 o'clock, should take the second dose an hour *before*, instead of *after dinner.*

The seed should be well washed before taken, to free them from dust or other vicious matter which may adhere to them from negligence in the persons who prepare them for market. Those who experience any difficulty in taking them in cold water, or without any thing, would do well to pour a little hot water on them. This immediately produces a *mucilage* which renders them more easily to be swallowed. But at all events they can be taken without difficulty in a little *jelly, molasses, mush, or the like.*

Persons much dyspeptic require a dose or so of *Epsom salts*, or *Seidlitz* powders, to assist the inceptive operation of the seed.

An *over-dose* may be known by *an immoderate* operation on the bowels, or by unusual restlessness at night, or an eruption about the mouth. In either case, the quantity should be reduced. Three teaspoonsfull is the common dose, but in *one* instance, *only ten seeds* were sufficient.

Regularity is to be observed strictly. It is a *sine qua non.* The patient must not expect to be cured in a *day*, nor a *week*, nor *two weeks.* To stop short of *three weeks at least*, were no wiser than one who, *nearly* across a stream turns back because it still runs rapidly. Let no one condemn the *White Mustard Seed*, who has not taken them as above directed, with *perfect regularity, for three weeks at least.*

Whilst taking the Mustard Seed, a rigid abstinence from all kinds of *ardent spirits, wines, and fermented liquors* MUST be observed, or the *Mustard Seed* will have very little, if any effect. And I would advise such as prefer health to *poison*, in order *to prevent a recurrence* of disease, to *continue this rigid abstinence.* It were well also to use no *vinegar*—eat no pickles—no *raw vegetables*—very sparingly of cabbage, and other greens, and of fruit of all kinds—use no milk, except in coffee and tea, unless it be well boiled. I have always been exceedingly fond of some of these things: of milk in particular—(it is a great promoter of *sick-headache;*) but I have nearly quit them all. I know that *any habit* may be broken, and *any propensity* controlled; and he who would not do all this, and *more*, for the sake of health, *why let him* (as Cobbet says,) *be sick—he ought to be sick*—and I would almost add, he *deserves* to die. JOSIAH F. POLK.

Washington City, July 22d, 1829.

EXTRAORDINARY EXPERIMENT.

An experiment was lately made at the New Tivoli, at Paris, to ascertain the degree of heat it is possible for a man to bear, in the presence of a company of about two hundred persons, amongst whom were many professors, savans, and physiologists, who had been specially invited to attend by the physician Robertson, director of this establishment. The man on whom this experiment was made, is a Spaniard, of Andalusia, named Martinez, aged forty-three years. A cylindrical oven, constructed in the shape of a dome, had been heated for four hours, by a very powerful fire. At ten minutes past eight, the Spaniard, having on large pantaloons of red flannel, a thick cloak also of flannel, and a large felt, after the fashion of straw hats, went into the oven, where he remained, seated on a footstool, during 14 minutes, exposed to a heat of 45 to 50 degrees of a metallic thermometer, the gradation of which did not go higher than fifty. He sung a Spanish song while a fowl was roasted by his side. At his coming out of the oven, the physicians found that his pulse beat one hundred and thirty-four pulsations a minute, though it was but seventy-two at his going in. The oven being heated anew for a second experiment, the Spaniard re-entered, and seated himself in the same attitude, at three-quarters past eight, ate the fowl, and drank a bottle of wine to the health of the spectators. At coming out his pulse was 176, and the thermometer indicated a heat of 110 degrees of Reaumur. Finally, for the third and last experiment, which almost immediately followed the second, he was stretched on a plank, surrounded with lighted candles, and thus put into the oven, the mouth of which was closed this time. He was there nearly five minutes, when all the spectators cried out—"Enough, enough!" and anxiously hastened to take him out. A noxious and suffocating vapour of tallow filled the inside of the oven, and all the candles were extinguished and melted. The Spaniard, whose pulse was 200 at coming out of this gulf of heat, immediately threw himself into a cold bath, and in two or three minutes after was on his feet safe and sound. He was received with the unanimous applauses of all the spectators. It is expected that the savans who witnessed this extraordinary experiment with the greatest attention, will publish their observations on this test, to prove what degree of heat the human body is able to bear without danger to life.

EXCISE REGULATOR,

Or Patent Self-Acting Recording Engine.

MR. RUDKIN has now confirmed, by the exhibition of his engine, the truth of the remarks made by us upon it in our last. The public have been admitted to view it since Thursday, and we believe that not one out of the crowds that have seen it, has left the Hall unassured of its adequacy to the important objects proposed by it, or unimpressed with the beauty of the invention, and the talent of the ingenious inventor. The machine has been fitted up so as to exhibit, in the most perspicuous manner, its whole structure and varied movements; and notwithstanding that it embraces so many different objects, nothing can be more simple in principle, or less complicated in detail. A mere child may understand the whole doctrine of its structure and movements in the lapse of a few minutes, and any person of common apprehension, might learn accurately to work it in the course of the first exhibition. Next to its originality of invention, this simplicity of structure and movement forms its most striking characteristic; and from this also arises one of its highest recommendations, as simplicity in such matters is the surest test of efficiency. We regard the construction of this engine as forming a new era in mechanics, and we trust that its respectable and talented inventor will not too speedily withdraw with it from amongst us, but allow all who have any taste for mechanics in Glasgow, full time to examine it; and thus also, at the same time, afford to the lovers of music a longer period to enjoy and admire the strains of his beautiful and gifted child.

RECIPES.

METHOD OF STOPPING HÆMORRHAGE FROM LEECH BITES.

Occasionally leech bites left to themselves, bleed excessively, even so much as to endanger life; and cases have occurred where all the usual means of stopping the issue of blood, when tried, have failed. The Marquis Ridolfi then says, that the application of the cupping glass to the point from which the blood escapes, is always successful. He uses a very small glass when the hæmorrhage proceeds from a single bite, and a larger one when it issues from several near to each other. Almost immediately on the application of the glass, the blood forms a clot over the bite which suspends the hæmorrhage. The formation of this clot takes place with great facility, even in subjects in whom the blood is very thin and aqueous. The glass is allowed to remain on for a few minutes, until the integuments become tumefied. Care must be taken in removing it not to disturb the coagulum, as only the fluid part of the blood should be emptied, and the glass is applied again and again, until the hæmorrhage has completely ceased.—*Med. Rep.*

TO MAKE RASPBERRY, STRAWBERRY, CHERRY, AND ALL KINDS OF WATERS.

Take any quantity of the ripest raspberries, squeeze them through a linen cloth, to extract the juice from them, put this in a glass bottle uncorked placed in the sun or on a stove until it is cleared down; then pour it gently into another bottle without disturbing the sediment; to half a pint of this put one quart of water, and sugar to your taste, pour it from one vessel to the other, strain it, and put it in ice to cool, this will be a most delicious cool drink in hot weather, and extremely safe in perspirations.

LEMONADE WATER OF A DELICIOUS FLAVOUR.

Dissolve one pound of loaf sugar in two quarts of water, grate over it the yellow of five large lemons, then mix in twelve drops of essential oil of sulphur, when going to mix your liquid, cut thin some slices of lemons, and keep it cool, and it will be most excellent.

ANOTHER EXCELLENT LEMONADE.

Take one gallon of water, put to it the juice of ten good lemons, and the zeasts of six of them likewise, then add to this one pound of sugar, and mix it well together, strain through a fine strainer; and put it in ice to cool; this will be a most delicious and fine lemonade.

A COOLING CINNAMON WATER IN HOT WEATHER.

Boil one gallon of water, pour it into a gallon demijohn, set this before the fire, then put into it twelve cloves, two ounces of whole cinnamon, then stop up your bottle and put it in a cool place; when you want to mix your liquor, put half a pint into two quarts of water, with one quarter of a pound of sugar; cool it in ice before you serve it, and it is a most wholesome and delicious drink as you can take in hot weather.

A CHEAP AND WHOLESOME BEER.

Boil two ounces of hops, two ounces of pounded ginger, eight pounds of molasses, in four gallons of water, when it is cooled down to milk warm, add some yeast to ferment it. This makes a very wholesome and agreeable beer, and is not only cheaper, but will keep much longer than common beer.

THE FARMER.

Baltimore, Friday, August 14, 1829.

Maryland Agricultural Society.

The Trustees of the Maryland Agricultural Society, met on Wednesday, the 5th inst. at Eutaw, the residence of B. W. Hall, Esq. President of the Society, and after transacting the business before them, adjourned to meet at Woodley, the residence of Jacob Hollingsworth, Esq. on Thursday, the 10th September next, at *one o'clock, precisely*, when and where business of a very interesting nature will be presented for their consideration; a full and prompt attendance is therefore particularly desirable.

Baltimore, 8*th August*, 1829.

Jno. S. Skinner, Esq.

Sir—At a meeting of the Trustees of the Maryland Agricultural Society, held at Eutaw, the residence of B. W. Hall, Esq. on Wednesday, the 5th inst. the following resolution was proposed and unanimously adopted, and of which I was instructed to send you a copy:

"*Resolved*, That it is deemed essentially necessary for the future prosperity of this Society, that every officer of the Board of Trustees should concur in the adoption of more efficient and energetic measures for promoting the ultimate views of the Society."

And for the purpose of carrying the above resolution into more full effect, the Trustees adjourned to meet at Woodley, the residence of Jacob Hollingsworth, Esq. on Thursday, the 10th September next, at one o'clock, *precisely*.

I am, sir, very respectfully, your ob't. serv't.

Henry Thompson,
Recording Secretary.

☞ Mules.—A drove of the finest mules that we have recently seen, arrived here from Kentucky, last week. There were from 80 to 100, and were readily disposed of at very fair prices—$75 being the lowest at which any of them were sold.

We notice another drove advertised for sale in the Gazette of Wednesday evening, which will be worthy the attention of farmers.

☞ William Prince, proprietor of the Linnæan Botanic Garden, New-York, desires to add to his work on the Vine, now in progress, a list of all the vineyards existing in the United States, and the success attending them; and he will be gratified to receive from the proprietors of vineyards in every section of our country, the required information, per mail, as soon as possible, as the work will be published during the present or ensuing month.

Extract of a letter from a Father, resident in Baltimore, to his Son of sixteen years of age—at school in France.

Baltimore, *August*, 1828.

My dear Son—Your letters have been received, and have given us all the most sincere pleasure. I avail myself of this occasion to give you my opinion on the subjects of Geography and History. These two sciences ought to be studied together. Geography as it is usually taught in schools, is a real mockery. It has been in this manner made the skeleton of nature, bereft of life, of symmetry and of colour; but is this what Geography ought to be? Is this unattractive mathematical form, the only shape in which the science of the earth can be presented to the mind?—No, my son; when connected, as it ought to be, with History; Geography assumes the aspect of a boundless landscape, enlivened by sentient beings, and glowing with the warmest tints of nature. To pursue the study of those two sciences as they are in themselves, is to have lived in all ages; travelled over all countries, and to have conversed with all nations, that ever did or do exist.

Geography is a queen, whose domains are commensurate with the land surface of the earth; whose power has existed with, and can be only limited by time itself. History is the genius who sits at the foot of her throne, and records the passing events of an empire whose wide spread bounds embrace all nature, dead and living.

In this, however, as in every other human pursuit, order is the first law. Procure a good history of the United States, and read it slowly with the Atlas under your eye. This method of reading is only dry at first; a very brief practice will render it not merely easy but delightful. It has much of the benefits of travelling; you read, for instance, of the discovery of the coast of Virginia, turn to the map you see the place. You follow the first settlers; you are with them mentally, and as you advance, you trace the progress of your country to its present condition.

It must be obvious, that one reading of any history in this manner, will do more to fix a clear view of the events of their locality, than could ever be obtained by any other mode without maps. Though I mention the preceding method here as particularly applicable to the United States, as I am anxious to fix your attention, in an especial manner, to your own country; yet, I may further observe, that it suits the entire Geography and History of the whole earth. Even when reading a common newspaper, if domestic or foreign events were read with maps, what invaluable acquisitions of historical and geographic knowledge would be impressed on the mind, and so impressed as to render their impressions indelible.

With respect to the different geographical works most worthy your attention, I feel no hesitation in recommending Malte Brun's Universal Geography, as a general work, greatly superior to any other in either the English or French languages; but in regard to the United States, this otherwise great work is very deficient.

Besides Morse's Geography, there have been three Gazeteers, or Geographical Dictionaries, published in the United States; one by the Morses, one in two large octavo vols. by Worcester; and a third in one large royal octavo, by William Darby. All these three Dictionaries are purely geographical; but in 1823, a work essentially different was published in Philadelphia, by Carey and Lea. In 1820, M. Carey and Son, had given in Philadelphia, an edition of Lavoisne's Geographical and Historical Atlas, and in 1823, Carey and Lea published an American work on a similar plan.

I may put you on your guard here from confounding an Atlas published in Philadelphia early in this century, by Mathew Carey, with those of a different character, published afterwards by the same house, under another firm.

By far the best Atlas of the United States, ever yet published by any person, is "The *American Atlas*," by Henry S. Tanner, Philadelphia; but the latter, as well as the Atlasses of Finley, Philadelphia, and Lucas, Baltimore, are exclusively geographical.

Mr. H. S. Tanner, has recently added to his Atlas a "View of the United States," by William Darby, and supplied in great part, by that means, the statistical matter which could not be given through the means of maps.

All these works have their merits, but in addition to their connexion with Tanner's Atlas, the two works of Darby are most recent. Carey and Lea's American Atlas, or Guide to the History of North and South America, is a mine of valuable information, and it is sincerely to be regretted, that the publishers have so greatly restricted its usefulness, by giving it in the folio form. The price is enhanced beyond ordinary means. If the same matter, both of letter press and maps, had been published in a royal octavo volume, it would have been a most excellent book.

Tanner's Atlas is also expensive, but his compendium, or "Darby's View," is on the contrary cheap, it contains 14 section maps of the United States, and 622 pages, 18 mo. This volume has been highly and deservedly well spoken of, and for its price, $3, contains, it is probable, the most condensed and best view yet given of the United States. Mr. Tanner has just published a beautiful map of the United States, which for $8, comprises the most important matter in his Atlas. I have sent you the "View," and shall by the first conveyance send the Map.

I am relieved from the fear of meeting you at our table, ignorant of the great outlines and subdivisions of your country; or of the great events of its history: any aid I can give will be most cheerfully afforded, as I am not bestowing treasure on a miser who knows not its value; I am not sowing seed on a soil in which it will perish; nor am I expending money to procure the mortification of learning that it has been unprofitably bestowed.

In regard to general Geography, I would recommend, particularly as you are in France, the study of Malte Brun, in the French language—it will enable you to accomplish two objects at once; improvement in French and Geography.

Lavoisne's Atlas of general Geography, Genealogy, History and Chronology, may be also procured in Paris, and would of course be preferable to an English edition.

You are in the Queen of Cities, surrounded by the best schools, and the ablest Lecturers in the world. I pray you lose not a moment in availing yourself of such eminent advantages. In the spirit of all your letters, I see with pleasure an undiminished love for your own country. In your last, you seem anxious to know by what business you can most certainly "make a fortune" in America—inquire rather by what acquirements you can gain *character* and *distinction* amongst men of *virtue and talent!* and how, by the exercise and display of industry and superior learning, you may be useful to your country, and ornamental to the society in which you are destined to move. You have now mastered the French language—add to that a *speaking knowledge of the Spanish,* and you are sure of a respectable support, which is all that a man need care about in this world.—"Amongst all thy gettings, get wisdom."

Your affectionate Father, J. S. S.

☞ Silk.—Mr. D'Homergue, from whose pen we have lately seen some very interesting essays on the manufacture of American silk, is now in Baltimore. We understand that he is desirous of purchasing as many cocoons as he can obtain, and that he will moreover impart such information to those who will feel disposed to call upon him, as may probably be of importance to the raisers of that article of growing interest to our country. He has taken up his residence at the Fountain Inn, Light street, where he will remain for a week.

Baltimore Market.—There is no change in the price of flour—business in this article is very dull. There is an advance in the price of wheat, and best white for family flour is getting scarce—it would readily command our quotations. Live stock continues dull, and a trifling reduction from last week's prices has taken place.

Latest Foreign News.

By the James Cropper at Hampton Roads, Liverpool dates are received to the 27th June, inclusive. The British Parliament was prorogued on the 24th June.

According to accounts from Kalarasch of 31st May, the Pacha of Silistria was said to have made a vigorous sally from the fortress, and to have destroyed several of the works thrown up by the Russians, till after a sanguinary action he was driven back into the fortress. Eight hundred wounded have been brought over the Danube to Czulesti.—General Malinofsky is said to be among the slain. who distinguished himself at the taking of Tournoul; and a General of Artillery. Kutshuk Achmed Pacha, is said to have been continually at the head of his troops during the sally, and to have encouraged them by his impetuous courage. The loss of the Turks is also said to have been very great. Persons acquainted with the Pacha of Silistria agree that he is justly considered as one of the most inveterate enemies to the Christians, and especially to the Russians, in all the East. This hatred is the ground of his cruelty to the wounded and prisoners.

St. Petersburgh, June 10.—By the steamboat to Lubec, detailed accounts have been received of the victorious engagement near Paravadi, in which the Grand Vizier, at the head of numerous troops, was defeated by General Roth.—Gen. Roth remained master of the field of battle, and took two pair of colors, which Gen. Diebitsch has sent to his majesty. The enemy left above 2000 killed, and a great number of horses on the field. The animosity with which both sides fought, was such that only one Mullah and 45 men were taken prisoners. Our loss was 486 men, 13 officers, 1 staff officer, and Major General Runden, killed; and 1 colonel, 2 Lieut. Colonels, 2 staff officers, and 596 privates wounded.

Liverpool Markets.—June 24.

On Saturday, the 20th inst. about 1600 bales of Cotton were sold, and thus far this week, the business is computed at 5700 bales. The complexion of the market remains materially the same, but the demand in American is confined chiefly to quality, ranging from fair up to good. The accounts from Manchester are beginning to lose their gloomy tendency, but no improvement of any stability has yet taken place there, or in the other manufacturing towns.

Rice was in request, and 160 tierces brought 16s 6d a 20s per cwt. The Corn market was very inactive, and Wheat declined 1 a 2s per qr. Scarcely any inquiry for Flour or Indian Corn, and prices of both articles rather lower: the weather for a week past, has been exceedingly favourable for the growing crops of Grain. At yesterday's market the business was limited, and wheat as well as Flour, was again lower; some further decline is looked for. In Tobacco the transactions are unimportant.

Liverpool, June 23.

The imports of free or foreign Wheat, for the week, are small. There is a little increase in the supply of Irish Oats, but of them, as well as of other articles of the trade, it is still very moderate. The dullness noticed last Tuesday, has continued throughout the week, and has been further influenced by a moderate fall of rain, which it is expected will still be serviceable to the spring crops: the reports from various parts of the country, however, and particularly from the midland and southern counties speak very unfavourably of their present appearance.

There has been no revival in the country demand for Wheat, and the sales to the town and neighbouring millers have been so very limited, that even with our scanty supplies, prices, up to Saturday, had further given way 2d to 3d per bushel.

Prices Current in Boston, August 7.

Apples, best, bbl. —— a ——. *Beans,* white, bushel .90 a 1.00. *Beef,* mess, bbl. 10.50 a 11.00; cargo No. 1, 9.50 a 10.00; No. 2, 8.00 a 8.50. *Butter,* inspected, No. 1, new, lb. .14 a .16. *Cheese,* new milk, .7 a .9; skimmed milk, 2. a .3. *Flour,* Baltimore Howard-st. 5.50 a 5.62; Genesee, 5.50 a 5.75; Rye, best, 3.25 a 3.62. *Grain,* Corn, bu. .63 a 68; Rye, .63 a .65; Barley .67; Oats .42 a .45. *Hogs'-Lard,* 1st sort, new, lb. .9. *Pork,* clear, bbl, 17.50 a 18.00; Navy, mess, 13.00 a 13.50; Cargo, No. 1, 13.00 a 13.50. *Seeds,* Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel -----. *Wool,* Merino, full blood, washed, .32 a .45; do. do. unwashed, .18 a .22; do. three-fourths, washed, .26 a .32, do. half blood, .23 a .27; do. quarter, washed, .22 a .24; Native, washed .20 a .23; Pulled, Lambs', 1st sort, .35 a 37; do. 2d sort, .22 a .25; do. spinning, 1st sort, 27 a .30.

Prices Current in New York, August 8.

Bees-wax, yellow .23 a .24. *Cotton,* New Orleans .9½ a .12; Upland, .8 a .10½; Alabama, .8½ a 11. *Cotton Bagging,* Hemp yd. .18 a .21; Flax .13 a .18. *Flax,* American, 7 a 8. *Flaxseed,* rough, tierce ——; clean ——; *Flour,* N. York, bbl. 5.00 a —; Canal 5.00 a 5.37½; Baltimore Howard st. 5.25 a 5.37½; Richmond city mills, —; country, 5.00 a —; Alexand'a, 4.87½ a 5.12½; Fredericksburg 4.87½ a 5.00; Petersburg, 4.87½ a 5.00; Rye Flour, 3.37½ a 3.50; Indian Meal, per bbl. 2.25 a 2.37½; per hhd 13.25 a 13,50. *Grain,* Wheat, Vir. 1.00 a 1.05; N. Caro. 90 a 1.00; Rye, North, 58 a 60; Corn, Yel. Nor. .56 a .60; Barley, .— a .—; Oats, South and North, .36 a .44; Peas, white, dry 7 bu. —; Beans, 7 bu. 7.50 a 9.00. *Provisions,* Beef, mess 9.62½ a 10.00; prime 7.50 a 8.00; cargo 6.00. Butter, N. York, —— a —; shipping, .8 a .11; Lard, .5 a .6; Pork, mess 13.25 a 13.75; prime 10.50 a 11.00, cargo 3.25 a ——; Hams, Va., per lb. .9 a .10½; Northern .9 a .10½. *Rice* .2½ a .3. *Tobacco,* Virginia .4½ a .5½ a .6½; Kentucky, .4 a 5½ a .6½. *Wool,* Merino, American fleece, .32 a .36; Pulled, .32 a .35; common, .18 a .25; Pulled, spinning, .18 a .33.

Prices Current in Philadelphia, August 10.

Bees-wax, yellow .22 a .23; *Beans,* bushel $1.00 a 1.25; *Beef,* mess 10.50 a 11, prime 9 a 9.50, cargo 7; *Butter,* No 1, .7½ a .8, No. 2, .5 a .6; *Cotton,* New Orleans .10 a .12, Upland 9. a .10, Tennessee 9. a .10, Alabama 9. a 10; *Feathers,* South. .33 a .34, West. .30 a .31; *Flax* .7½ a .8½. *Flour,* sup. 5.00; fine, 4.62½ a 4.75; Ryo 3.12 a 3.25; Cornmeal, hds. 11.75 a 12.00, bls. 2.10 a 2.12½; *Flaxseed,* cask —— a ——; bu. ——; *Grain,* Wheat 1.00 a ——; Rye .60 a.65, Corn l. c. white, .44 a .46, l. c. yellow, .46 a .48, u. c. round, .51 a .52; Oats .30 a .35, Barley, Pa. .— a .—; do. East. .55 a .60; black-eyed Peas .40 a .50. *Hams,* Jersey .9 a .11, Virginia .8 a .9, Western .8 a .8½; *Hemp,* 200 a 210; *Lard,* .6 a .8; *Oil,* linseed, .67 a 68; *Pork,* mess, 13.25 a 13.50, prime 11.50 a —, cargo 10.00 a 10.50; *Rice,* 2.50 a 2.87½; *Tobacco,* Kentucky .3½ a .6, Vir. .4½ a .7; *Wool,* common washed lb. .26 a .28, half blood 28. a .31, three quarters blood .31 a .32, full blood .34 a .38; unwashed, generally 10 cents less, according to quality.

ALMANAC.

1829. August.	Sun. Rises.	Sun. Sets.	Length of days.	Moon Rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 15	5 13	6 47	13 34	7 17
Sunday,........ 16	5 14	6 46	13 32	7 58
Monday,........ 17	5 15	6 45	13 30	8 37
Tuesday,...... 18	5 16	6 44	13 28	9 16
Wednesday,.. 19	5 17	6 43	13 26	9 56
Thursday,.... 20	5 18	6 42	13 24	10 37
Friday,......... 21	5 19	6 41	13 22	11 22

Last Quarter, 21st, 8 h. 28 m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Tobacco.--Maryland, ground leaf, $5.00 a 10.00—seconds, ordinary, 4.00 a 5.00—red, 4.00 a 6.00—fine red, 7.00 a 8.00, for wrapping 5.00 a 10.00—Ohio, common, —— a —.—good red —— a ——.—fine yellow —— a ——.—Rappahannock, 3.00 a 3.50—Kentucky, fine 4.00 a 5.00—wrapping, 4.50 a 7.00.

Flour—best white wheat family, $6.00 a 6.50*—superfine Howard-st. 5.25 a 5.37½; city mills, — a 5.00 Susquehanna, —. Corn Meal, bbl. 2.37½—Grain, best red wheat, new 90. a .95;—best white do. new 1.03 a 1.10; ord. to good, .70 a .80—Corn, white, .46 a .—; yel. .46 a .——Rye, 54. a .55—Oats, .28 a .33—Beans, 1.00 a 1.25—Peas, .55 a .60—Clover seed, 3.25 a 3.50—Timothy, 2 a 2.50—Orchard Grass, 2 a 2.50—Herd's, .75 a 1.00—Lucerne .37½ a .50 lb.—Barley, .45 a .50—Flaxseed, 1.20—Cotton, Virg. .9½ a .10—Lou. .11 a .12—Alab. .9 a .10—Mississippi .10 a .12—North Carolina, .8 a .9—Geo. .9 a .12—Whiskey, hhds. 1st pf. .23—in bbls. .24 a 25—Wool, common, unwashed, lb. .15 a .16—washed, .18 a .20—crossed, .20 a .22—three-quarter, .25 a .30—full do. .30 a .50, accord'g to qual.—Hemp, Russia, ton, $225 a 230; Country, dew-rotted, 136 a 140—water-rotted, 170 a 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, 6.25 a 6.50—Herrings, No. 1, bbl. 3.75 a 4.00; No. 2, 3.50 a 3.75—Mackerel, No. 1, 6.50; No. 2, 6.00; No. 3, 4.50—Bacon, hams, Baltimore cured, .10 a 11; do. Eastern Shore, .12½—hog round, cured, .7 a .8—Feathers, .28 a .29—Plaster Paris, cargo price per ton, $3.50, ground, 1.25 bbl.—Prime Beef on the hoof, $5.00 a $5.25.

* Six dollars and fifty cents by the single barrel, for Ellicotts' Patapsco white wheat family flour.

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AGRICULTURE.

COMPLETE TREATISE ON HORSES:

Teaching how to judge them; to rear and manage them; how to improve their breed; to prevent or to cure the maladies and accidents to which they are liable; and to derive from them the most value under all circumstances. Useful to Breeders and Farmers, engaged in the rearing of these interesting animals; to Officers of Cavalry or Inspectors of Recruits; to Keepers of Livery Stables, Sportsmen, or Veterinary Surgeons; to stage Proprietors, Travellers, Farriers, Horse Jockies, Amateurs of the Horse, &c. &c.

By an Old Officer of the French Cavalry.

(*Translated from the French for the American Farmer.*)

(Continued from p. 156)

CHAPTER VIII.

Of putting to Grass—Care and Precautions to be used.

It is owing to the domestication of the horse by man, that he is reduced to change totally his habitual nourishment; for in a state of nature, green vegetables are the only aliments which suit him. This truth is so evident that a horse cannot be preserved in a perfect state of health without recourse to his primitive food—to wit, green plants. Notwithstanding, it will not suit all horses indiscriminately, and regard should be had to their age. Old horses it cannot but weaken instead of restoring their strength. In this stage of life, the organs tend progressively to decrease and decay—they fail then for want of tone. It is then certain, if we expose these animals to a change of food which will only produce weakness, inconveniences will result. In place of being gently purged the horse will have a diarrhœa of more or less continuance, which can only be cured by putting him on dry food.

As to young horses green food is very beneficial; it begins immediately to purge them gently, and augments all the secretions; the urine, which before was thick soon becomes limpid: it is by this regimen that the blood is renewed. Even the direction of the limbs can be restored in a horse over used, and it may be asserted that this is the best method of restoring him. It must not be thought, however, that a horse thus restored can be compared to a sound one; but it is possible he may be mistaken for one.

From the effect of green food, horses are cured of many diseases, such as the farcy and glanders, particularly where they have not taken much consistence. It should, however, be observed that horses disposed naturally to humours should be excepted.

Green food can be given in two ways: turning the horse in the meadow, and taking the food newly cut to the stable.

Each mode has its conveniences and disadvantages. In the first, the horse left to himself, or shut in an enclosure, or even tied to a picket, with a long rope, spoils much grass in walking, running, or urinating on it. Notwithstanding, all these disadvantages are nothing to the happy effects it has on him. Turned out in a meadow the horse takes exercise; the secretions are better made, the digestion is better; he is gay, lively and playful, from the pleasure he derives in finding himself in his natural state. This freedom has great influence on his restoration. He has no occasion to be groomed by the hand of man, he rolls and frees himself from the dirt that may incommode him by rubbing against a tree. The rain wets and cleans him: it is not to be feared that a suppression of perspiration will occasion illness, because he is constantly exercised, and preserves thereby a degree of temperature suitable to him. He can be stabled at night, when a little grass should be given him mixed with dry food: in the pasture, he chooses the plants most appetiting, which dispose him to easy digestion—while in the stable he is deprived of this advantage, the most salutary of the plants escaping the scythe by their lowness. The green food should be carried to him: to save trouble servants mow much at once; it heats, contracts a bad smell, and disgusts the animal. Great care should be taken in this particular, when it is judged necessary to feed with green food in the stable; and in this case, it may be said, *the eye of the master fattens the beasts.*

While a horse is at grass, he should be properly treated, and regularly groomed, as when in the stall. The contrary method is most absurd. If the cutaneous transpiration be necessary at all times, how can it be doubted that it is more so while he has greater exercise? This point cannot be too much insisted on. Many persons do not water horses during this time; this is not very judicious, for although nourished by aqueous substances, it is necessary to give them at least a bucketful of water every day.

Exercise is very serviceable: if the horses are too young to be rode they should be led.

If grass be fed in the stable, that of artificial meadows should be preferred. The lucern, though very good, requires to be used with the precautions which we have mentioned. As to sainfoin, trefoil and oats, they agree perfectly with horses, and produce, without care, the most happy effects.

Situations a little elevated should be selected for grazing. Some persons pretend, that low meadows are best because they contain aqueous plants which purge more promptly; but we reply that they exist also in high meadows, which have besides, the great advantage of not containing any venomous plants which abound in the others.

Before grass is cut, the dew should be absorbed by the sun; while damp it is less easy of digestion, and is susceptible of putrid fermentation. The exact time that a horse should be kept at grass cannot be determined—some require only a fortnight, others a month and sometimes longer. All this depends on their temperaments, and the particular dispositions of the animals, while on this new regimen. They should not, therefore, be taken from grass all at the same time. The only rule to be regarded in this case is to wait till the horse be restored. The most proper season is from the beginning of May to the end of June; then horses desire most ardently the change of food, and this indication perhaps is the true rule to determine the fit time; the plants are then in flower, are sweet, and contain all the principles proper to refresh and renew the horse. Later, as the grass approaches to seed, it loses many of its principal virtues.

When a horse is taken from grass care should be taken not to give him dry food immediately. The sudden change from a food of a nature so different, seems so contrary to animal economy, that horses from the transition are taken with diarrhœas, which destroy the benefits they have derived from grazing: they fall off visibly, and soon relapse to the state in which they were before. Green food should be mixed with dry, either before a horse is put to grass or taken from it. It is only by degrees that this change of nourishment should operate; for nature is an enemy to extremes, and they ought as much as possible be avoided.

Green food, in increasing the blood, tends to make the horse plethoric; the season besides coincides with this diathesis; in this case many persons bleed, but in place of destroying the evil it augments on the contrary the dominion of the blood. Thus bleeding should not be resorted to except in rare and in dispensable cases. We should guard against bleeding a horse that is lean and weak, for then he wants blood—why then take it from him? Bleeding in this case is very prejudicial.

The cleanliness of the stable cannot be too much recommended, as well as its exposure, which ought to be salubrious and airy—if this advantage cannot be enjoyed it would be better to put horses in a cart house.

What should we think of the method of leaving horses in their ordure to the middle of their legs, so that the body becomes covered with a crust which prevents cutaneous transpiration, drives it inwards, and produces different psoric disorders—hence water in the legs, (*eaux aux jambes,*) farcy, and many others.

Horses at grass do not suffer these inconveniences; they only lie down in places that appear to them driest; and, to divest themselves of dirt, employ means which those in a stable cannot use.

CHAPTER IX.

Of Grains suitable for the Horse.—Their Properties. Quantities to give, &c.

We now come to the different kinds of grain which can be given to the horse, and we will examine what should be their properties to agree with him. Wheat is an excellent grain, of which little use is made for the horse, being exclusively employed for the nourishment of man. There are many cases in which it may be very advantageously given to horses. It is a very good cordial, and an excellent *analeptic*, as it restores the strength quickly: on stallions, a moment before covering, it has a good effect, and it acts powerfully in this case.

The maize, or Indian corn, in certain countries, is used for men as well as horses; it fattens the animal and gives him great plumpness, but it is of difficult digestion, and ought to be given with great precaution. It may be given with advantage if it be previously bruised, otherwise, it should be remembered that it can only serve in cases of extreme leanness, and is not without inconveniences.

Barley is equally good for the horse; it is very refreshing, while the meal mixed with water makes an excellent drink. In warm climates, in Spain and Egypt, this food is much used; it is less heating than oats, and very restoring; but it appears that it only suits in these climates. This has been proved by giving it to horses brought from those countries, and they have fallen off. However, it may be successfully used by mixing it with oats, which will modify its too speedy action. There are circumstances in which this ought not to be neglected, particularly in spring, or when inflammatory diseases are apprehended.

Oats are among the kinds of grain of which good use is made for the horse. It is what is generally used for the food of this noble animal. Oats may be injured by the mixture of other noxious grains, such as darnel, (*l'ivraie,*) the poppy, &c. It is an excellent cordial, proper to give strength and vivacity, but should not be given in too great quantities, as it may occasion dangerous inflammatory diseases, particularly in young horses. It happens often, that greedy for this grain, they swallow it without mastication, so that it produces no effect, the digestive, organs not being able to act on the husk, it is voided in the same state as taken. This may be remedied by breaking the grain so that it undergoes mechanically, by trituration, the action it should sustain from the horse's teeth. It would be an excellent method to grind oats coarsely, or at least to soak them before feeding with them.

To be of good quality the grain should be large, shining and of smooth surface; if it has not these qualities it is a proof that it has been cut in a wet season, or before its perfect maturity, which deteriorates it and deprives it of its natural qualities. It should be run through a sieve before given to the horse, to free it from the earth, straw or even stones it may contain. This precaution is indispensable to prevent serious accidents which may often otherwise occur.

Bran cannot be considered a food for horses, because the stomach has no action on it; it can only fill him up—and if it produces any good effects it is from the flour it may contain. This alone can assimilate to the body—the rest goes to excrement.

Bran is given commonly to horses when they are too much heated, to refresh them. Care should be taken that it contains flour; if not we may dispense with it and use only the water decanted from it.

Of itself bran is very indigestible, and there are few cases where it can be used with advantage. If the horse be disposed to putrid malady, the bran operates with it and passes rapidly to putrid fermentation, which commences immediately by acidity and finishes by putrefaction. Given to a horse for some time it produces leanness and weakness, and if all horses eat it with pleasure it is only on account of the flour it contains. It produces also vermin, which are owing to the weakness of the animal. It should be observed that these diseases denote the inverse of strength, and should not be aggravated by giving a food, calculated to diminish vigour.

CHAPTER X.

Of Straw.—Of its advantages—Mixing it with Fodder.

Straw is a very good food for horses, particularly wheat straw. It is very nutritious on account of its saccharine principles, which are increased in proportion to the heat of the climate. Straw to be good should be mixed with the plants that grow with the wheat; these are the camomile, vetches, the gith, (*les nielles*,) and melitots.

There is a bad custom here of not cutting straw before giving it to horses. It would be useful, nevertheless, to introduce a contrary one in France, as practised in Germany, England and other countries. It is the means of preserving horses sound a long time, and great advantages will accrue from the precaution.

It appears incontestible that wheat straw is the best food that can be given to horses. It prevents them from growing big-bellied, from becoming short winded, and even pursy; which frequently happens to horses fed on hay alone.

Cut straw has besides an essential advantage—that of being easily mixed with oats, and tempering the too active principles of the latter. Horses fed in this manner are able to support much more fatigue than those fed with hay.

Rye straw does not suit horses; it contains very few nutritious principles, but appears to agree with horned cattle. Oat straw on the contrary is excellent, particularly when it is but slightly beat; the few grains which are found in the heads excite strongly the appetite of horses as well as other beasts.

When straw is mixed with darnel, the pernicious effects of the latter may be neutralized by wetting it with salt and water. The bad effects of mouldy hay are obviated also in this way, and it is deprived of its bad qualities. It should be laid down as a principle never to give hay alone. It should be mixed equally with good straw; this method has the double advantage of being salutary and economical. The reader can, on this subject, consult the principles we have given on the method of curing forage.

CHAPTER XI.

Drink of the Horse.

There is for the horse, as for other animals, (man excepted,) but one drink, which is water. But he may be given pure water, or mixed with beer or flour. We have already given an opinion as to this kind of drink. As to pure water, we should not use indifferently the first we meet with. On this point there are principles which cannot be neglected without inconveniences.

Water should be regarded as a great dissolvent—it is in consequence of this that it is rarely found pure: even rain water is not always without mixture. The purest water, without contradiction, is that which has been subjected to distillation: by this means all the heterogeneous parts are drawn off. There has been invented in our days filtration through charcoal, which produces nearly the same results, and we cannot too much applaud a process which procures to the most useful and usual of drinks, a purity and salubrity which are not to be despised. But as there is not always the facility of procuring distilled or filtrated water, we must consider that which in its natural state, is the most suitable and wholesome.

In general, to be good, the water ought to be agitated and combined with the atmospheric air; it should have the property of boiling easily and cooking vegetables well. River water, or that of a clear and limpid brook, should be generally preferred. Water should be considered good which easily dissolves soap; when it forms in lumps it is a proof that it is not pure.

The Waters of Springs, Rivers and Brooks.—The best.

With respect to springs, it is necessary to consider the nature of the mountains from which they issue; if they are primitive, that is to say, of granite, the water will be pure, because that rock is the least alterable; while those found in *secondary*, that is, in limestones, are very inferior, because these rocks dissolve easily in the water and saturate it. Waters which run through sulphur, and consequently imbibe carbonic acid, are only good for their mineral qualities.

The best river or brook water, is that which runs on sand or silex. If they flow over a fat and muddy bottom, they are inferior or rather bad.

Water to be very good should be limpid; this does not, however, establish its excellence, because many waters are limpid and still contain heterogeneous substances, particularly salt water—sea water is very clear and limpid and notwithstanding is good for nothing.

Waters which contain salt in dissolution, as those found on the sea shore, or places little remote from it, are very good; the water is saturated with it, and must be excellent for animals that drink it, being opening.

Those that contain particles of iron, and run through mines of this metal, are to be sought for, as they are astringent and tonic. It is not the same with those impregnated with copper, and which are found in places where mines of this metal abound; they are dangerous and occasion severe colics which are often fatal.

We should avoid generally watering a horse at the side of a spring, because the water, to be good, ought to have contact with the air, and because it is to be feared that it may have flowed from mines of copper.

Good water ought to have a fresh, lively and agreeable taste—it gives a tone to the stomach, aids digestion, and gives the necessary conveyance to the humors.

(To be continued.)

SOIL.

On loosening and pulverizing the Soil.

The great importance of deeply loosening and pulverizing the soil, may be seen from a consideration of the distance to which the roots of many vegetables extend themselves where the soil is open to receive them. The earth from its own gravity, settles down into a hard, compact, and impenetrable body. While in this state, the roots of plants, which are the collectors of the food, cannot find a free passage, nor overcome the continual resistance.

The activity of the vegetable life may push them a little from the main stem; but they can neither ramble at large, nor draw the same copious supply of nutriment. When we trace roots to the boundary of their range, we are struck both at the distance to which they travel, and at the obstacles which they surmount. Mr. Peters, President of Brockley and Merion Society, states that a grain of wheat if planted in a mellow soil, will strike its roots three feet downwards, and elongate much farther horizontally.

The roots of oats have often been discovered at eighteen inches from the stem; and those of the turnip, which, with the exception of the bulb and tap root issuing from it, are all slender, flexible threads, have diverged on all sides to the distance of twenty inches. This doctrine may be illustrated in the garden as well as the field, and in most cases in the former, with greater effect; because there the cultivation is superior, and is carried to a greater depth.

The fibres proceeding from an onion are of a whitish spongy substance, and are distinctly discernible in a black mould; and these have been found to descend fully two feet in a trenched soil. The carrot will often measure from twelve to fourteen inches; and the fibres which feed it must have sunk much deeper. The potato will push out leaders to the distance of fifteen and eighteen inches in a sandy open loam, well stirred with a hoe.

These facts lead irresistibly to the conclusion, that the skilful cultivator should prepare the soil for the utmost extension of the roots, and should employ such instruments as will pierce it deeply, and crumble it to powder, for the free and unrestrained passage of the radical fibres. If the ground be ploughed only three inches deep, the roots can descend no farther than the share and coulter have gone before them; and if a tangled sod of grass be *merely turned over* without being broken and pulverized, they will find vast difficulty in stretching themselves through this matted net-work.

The same observations will apply if the surface be encumbered with unsubdued and unbroken clods. The roots will be unable to penetrate their hard coats, and however full of vegetable nourishment, it must be lost because inaccessible to those dispersed feeders of the crop. The fitness, therefore, of every instrument to break and loosen the soil becomes a criterion in judging of its merit; and its perfection is exactly proportioned to the superiority of its structure for accomplishing this essential end.

[*Tallahassee Advocate.*

(From the Kentucky Reporter.)

THE WEEVIL.

I am an old miller, and have observed the progress of the weevil for many years, and I offer you my opinion as to the mode of saving your wheat.

The egg of the weevil is deposited in the wheat while growing. When the grain is put in bulk, it usually becomes moist and warm, the egg is then hatched into a worm, and whilst in that state, it injures the wheat. Without this warmth, the egg does not hatch, and the grain remains sound. Then to prevent the hatching of the weevil, the wheat must be kept cool. The most certain way to this, is to dry it well in the sun, and then spread it thin on a cool floor until used or sold. This mode of saving wheat proved successful in many instances last season; and where it was carefully attended to, in no instance failed, as far as I have understood. There is another mode of preserving wheat, which is equally effectual: that is, kiln-drying it, which kills the weevil in the egg.

And sometimes it is saved by leaving it in the field in hand-shocks for ten days or two weeks, if during that time the sun shines very hot. The great heat of the sun operates like a kiln to destroy the weevil.

If, however, the wheat is well dried and kept cool afterwards, that is all that is necessary. To accomplish this, it must not be put in bulk, in garners, or in rail pens; because in that situation it undergoes a sweat, that generally hatches the worm. When well dried, spread it out on a cool dry floor, and I doubt not it will escape the weevil.

F. KEATLY.

Lexington Steam Mill, July 4, 1829.

(From the Western Register.)

BUCKWHEAT—POTASH.

Mr. Kinney,—As the season for sowing buckwheat is approaching, I beg leave to give some information not generally known, that probably will encourage farmers to pay more attention to the cultivation of that article. The grain itself, and the manner of raising it is so well known, that any observations upon that subject would be superfluous. I wish to call their attention to the manner of turning the straw to account. That article is generally altogether destroyed by fire, and wasted, although it contains a greater quantity of *potash* than any vegetable that has come under my notice, and is easily obtained.

My method is, as soon as the grain is threshed, scrape away a smooth spot on level hard ground, on which burn the straw by small quantities at a time, continuing to throw it on the fire as fast as it will consume, the ashes must be left on the ground to cool, and afterwards taken up in barrels and put away for leisure time. The ashes can be leached in the usual way for soap making, and the ley should be kept clear and free from sediment: it must be then boiled until it becomes a solid cake and perfectly dry, when it will be very hard and stick to the sides and bottom of the vessel in which it is boiled, but by suffering it to stand for a few days to attract the moisture, it can be easily broken up and taken out. It must now be placed in a furnace and exposed to a red heat for a few hours, when it will be as white and as pure as any potash brought hither for sale.

Two acres of buckwheat straw when burned, produced me a barrel of ashes, from which I procured thirty pounds of pure potash.

The sale of the potash will fully pay the expense of cutting, threshing, and cleaning up the grain, as also the trouble of leaching, boiling and baking the salts, which can be done at leisure, as the ashes, if kept dry, may be preserved a long time. A small furnace that can be built by any ingenious farmer, will answer the purpose of baking the salts. It cannot be injured by any heat we can give it, but if exposed to the atmosphere it will soon dissolve and waste away.

A Farmer.

HORTICULTURE.

AMERICAN SILK.

[The following letters contained a great variety of specimens of silk, which are referred to in the letters, and which are creditable to Miss Hale, and the other persons who produced them. They add another item to the evidence which every day furnishes, and which is no longer doubtful, that the United States is peculiarly well adapted to the production of silk. Nothing remains to be done to make silk a staple article of American produce, but the establishment of manufactories to purchase and work up the cocoons of such producers as prefer selling their silk in cocoons to reeling it and selling it in a raw state. The latter will certainly be the most profitable, but it requires practice to enable persons to reel with facility, and therefore, for a time at least, a market for cocoons will be very desirable. The specimens referred to, and a variety of others, can be seen at the office of the Farmer.]

—

J. S. Skinner, Esq. *Cincinnati, Aug.* 3, 1829.

Sir,—Aware of the great interest taken by you in developing the physical resources of our country, and in the encouragement of domestic industry, I take the liberty of forwarding to you some specimens of silk, both raw and manufactured, the product of this region.

All the enclosed specimens were prepared by Miss Hale of this city, from cocoons produced by worms fed upon our native mulberry. This has been accomplished by Miss Hale, without any previous instruction on the subject, and without the aid of any machinery for reeling, except such as she herself manufactured for the purpose. You will see that most of the specimens are fine, strong, and of a beautiful whiteness.

Within the two last years a great number of experiments have been made in the vicinity of this city, in the culture of silk, all of which have resulted satisfactorily. Our climate is found to be very congenial both to the worm and the white mulberry tree. Of the latter more than one hundred thousand are now growing, it is supposed, within fifty miles of this place; and there is every reason for believing that the enterprize of our farmers is now directed to this important subject, in such a manner as is likely to produce the finest results. This attention to the rearing of the silk worm, is mainly to be attributed to the influence of our Hamilton County Agricultural Society, which, although but in its infancy, gives evidence of producing the most beneficial effects upon the agricultural and manufacturing interests of the rich and fertile region in which it is located.

Yours respectfully, B. Drake.

J. S. Skinner, Esq. *Cincinnati, Aug.* 6, 1829.

Sir,—To evidence that we are progressing in the culture of silk, I send you some samples of such quality as to justify us in surmising it probable, that when experience in manufacturing is acquired, American silk may be produced of a quality at least equal to the Italian. One circumstance is peculiarly encouraging: the worms do not appear to be subject, in this country, to the variety of diseases described as belonging to them in Europe.

The question as to the preference to be given to the white over the native mulberry, we have not as yet the means of practically deciding; our seedlings of the white being too young to furnish a correct criterion, although it is possible that the white may prove to be the best; yet it is probable that the purple may here possess properties essentially different from that of other countries. Von Hazzi states that, "the white is clothed with leaves fifteen or twenty days earlier than the other species;" a similar statement is made by other writers. In this state they put forth their leaves simultaneously. Situation, then, in this respect, produces an important variation. If the relative period of foliation is changed, is it not reasonable to suppose that its quality of food may also be affected? The fibres of the samples from the native mulberry, you will perceive are fine, strong and elastic; the evenness of the thread shews with what facility it can be made into superior sewing silk, even by inexperienced hands. Notwithstanding, however, these demonstrations in favour of the native, the cultivation of the white has not been neglected; in this county, it is estimated that there is a million of seedlings of one and two year's growth; we will, therefore, have ample means for prosecuting this important branch of industry. In fact, there is nothing wanted but the establishment of a manufactory, to render silk one of our staples. An establishment that would purchase cocoons, would even now be furnished with a considerable stock, raised the present season; and, I have no doubt would be a profitable undertaking, if conducted with requisite skill. Our farmers are fully in the spirit of rearing the cocoons, and only wait for such a market as might be created by the skill and enterprize of some of our eastern brethren, accustomed to manufacturing silk, to produce the article in great abundance.

The samples of Miss Hale and Mrs. Verbryck, are from the native mulberry. The coloured sewing silk was manufactured by the community of Shakers, at Union village, Warren county, Ohio. The worms were fed promiscuously with the white and native. Yours respectfully, D. C. Wallace

(From the N. York Farmer and Hor. Rep.

ON FEEDING SILK WORMS.

Interesting experiment in feeding Silk Worms with Maclura. Copy of a letter from T. M. Forman, Esq. to W. Prince, Esq. of the Linnæan Garden, dated Rose Hill, Md. July 15*th*, 1829.

Dear Sir—You requested me to make the experiment of feeding the Silk Worm upon the *Maclura*—Chance put in my possession a great number of eggs, which, placed upon the shelf of a remarkably dry cellar, were quite forgotten. When attended to, a great proportion were hatched, and of these nearly all had perished, but enough were saved to prove most inconvenient and troublesome, as no preparation had been made for their accommodation. From the first worms in their earliest stage, after being hatched, I selected a parcel, and immediately commenced feeding them with the Maclura; while all the others were fed with our native Mulberry, with which our own country abounds. Perhaps the Maclura worms were rather better attended to; if so, it was accidental, and not intentional. I can, however, assure you, that they grew faster and completed their cocoons from 10 to 15 days before the mulberry worms. I had taken 45 worms, and had 39 cocoons: what became of the other six I cannot say. On Wednesday next I shall send to D. Kyle & Co. a small box to be forwarded to you, containing some of the Maclura cocoons. You will please complete the experiment, by ascertaining from some experienced judge, what is the quality of the silk.

Be assured of this, that if the quality is equal, the Maclura is the plant to cultivate; it cannot be injured by clipping; the size of the leaf is a strong recommendation; it is infinitely the handsomest tree, and will make the most impenetrable hedge, or most ornamental standard tree—and if the fruit makes the splendid appearance which is reported, there can be no comparison. The foliage is the most dense of any known tree, and the leaf is as brilliant as that of the orange.

I am, sir, your obedient servant,

T. .M Forman.

N. B. Owners of extensive nurseries should make the experiment, say with 100 worms, each parcel hatched on the same day, fed with the white and native mulberries and the Maclura; the cocoons to be preserved carefully separate, and placed for winding in the hands of a competent judge of the quantity and quality of silk.

GREVILLE ROSE.

Description of a beautiful Greville Rose. Letter from J. B. Smith, of Philadelphia, to W. R. Prince, of Flushing.

Dear Sir: *Philadelphia*, 15*th July*, 1829.

Having not seen or heard lately of any description of the Rose Greville, I almost concluded that mine was the first that had flowered, or that I had the best success. In the beginning of last month a few clusters began to open very indifferently. I was much displeased with it, but a few days afterwards it flowered to my utmost satisfaction, immense numbers of clusters of from 10 to 20 roses each, there were in some clusters as many as 13 different shades very distinct, in others from 4 to 9, from a dark purple to a very tender blush; there were clusters of blushes only; likewise purple and scarlet, but all of different shades. It was pronounced by a number of gentlemen to be the handsomest and most curious of all the roses; even the most indifferent could not help to admire it, for every cluster formed a beautiful bouquet. The roses are somewhat larger than the common multiflora. Some are as double, others not so much, but even the semi-double, had their merit, for their bright yellow stamenas in numbers, surrounded by their purple, scarlet, or blush petals, were very handsome.

This is the rose I purchased of you about eighteen months since, and planted it on the east side of the house with the Multiflora, Lady Banks, and Champeny roses, all in one row, and left them unprotected by straw, &c. doring the last severe winter; the result was that I lost the Lady Banks totally, the Multiflora and Champeny to within six inches of the ground; the Greville lost six inches from the top; it was 16 feet high last fall.

I address you this in the hope that it may be agreeable to you; have the kindness to excuse the faults. I write to you in a foreign language to my own, and am no botanist. Respectfully yours,

John B. Smith.

W. R. Prince, Esq. *Flushing, L. I.*

Observations on Certain Insects, that Prey upon Peaches and Plums.

Sir,—Knowing the great pleasure you feel in promoting every species of science calculated to advance the best interests of your country, I herewith transmit for your examinatinn, a few peaches and plums, as they have recently fallen from their respective trees, which I expect upon investigation you will find to be infected by the same species of worm that occasionally finds its way to the roots of the peach tree, and which if not removed therefrom soon occasions its death. The idea that the fly, which deposits the egg of this worm, prefers the gum for its repository, I have always considered erroneous, and which I think the examination of the fruit I send you will evidently prove. An easy and sure means of destroying them, is to gather up from under the trees the fruit thus infected, giving it to the hogs or otherwise destroying it. In every situation where I have examined the fallen peaches from trees not in the vicinity of bearing plums, I have found them almost invariably containing the young peach worm, the egg of which must undoubtedly have been deposited in the germen or very young fruit of this present season. On the ground I occupy at Murray hill, there are no bearing plum trees, and every peach that I have examined under the trees there, has had the young worm in it. But on examining the peaches in the garden of Charles Oakley, Esq. I was a little surprised to see but comparatively few fallen fruit, and scarcely any of them containing any appearance of the worm. His garden contains a number of fine plum trees intermixed with the peaches; and the fruit of his plum trees has fallen off in great quantities, every one of which appears to contain the same species of worm as the peach. From which circumstance I am persuaded the fly prefers the plum to the peach for the depository of its eggs, and that consequently the planting of plum trees amongst our peaches would be one great means of preserving the fruit of the latter. I am aware that the destruction of our plums has been ascribed to the attacks of the curculio; however correct this statement may have been in other seasons or situations I know not, but it appears evident to me the same fly that deposits the egg of the peach worm upon the peaches, deposits it in the plum, and that the curculios, instead of being the cause of the plums falling prematurely, actually contribute in a very eminent degree to the preservation of our fruit by destroying the peach worm, after the fruit containing them fall upon the ground.

Whether the curculio deposits its eggs in the fruit while on the tree or after it falls, I do not know. If it does while on the tree, they must take a much longer time to hatch than that of the peach worm, which I have often found a quarter of an inch in length when the fruit fall. The curcolio I have never seen till several weeks after the fruit had fallen. I have then found them in bunches in a single fruit, with the remains of the peach worm dissolved into a soft watery like substance; but I have never found a peach worm alive in any of the fruit after the curculios enter it. The curculios, even in their youngest larvæ state, are easily discernible (from that of the egeria exitioso or peach worm,) by their feet and feelers as well as their small wiry and active appearance. But as I have sent you samples of both in their native livery, you will be able to correct me if I am under any mistake as to their titles, &c.

I am sir, with great respect, yours truly,

Samuel L. Mitchill Wm. Wilson.

New-York, July 11th, 1829.

Average price of Vegetables sold in Washington (N Y) Market, for July, 1829.

Cauliflower, from 8 to 18 cents per head—Brocoli, 6 to 12½ per head—Green peas, from 25 to 50 cents per bushel—New potatoes, from $1 50 to 31¼ cents per bushel—Cabbage, from 18 to 75 cents per dozen heads—Lettuce, 9 to 18 cents per dozen—Radishes, from 9 to 14 bunches for 12½ cents—Carrots, 2 to 4 cents per bunch—Beets, 3 to 6 cents per bunch of 5—Onions, from 14 to 18 bunches for 12½ cts.—do. in string from 3 to 5 cents per string of 2 to 3 lb. wt. each—Watercress, 6 to 18 cents per ½ peck—String beans, 12½ to 50 cents per bushel—Windsor or broad bean, 75 to $1 per bushel—Turnips, 2 to 6 cents per bunch of 6 to 12—Salsify, 4 to 6 cents per bunch—Parsley, 3 cents per bunch—Spinach, 25 to 32 cts. per bushel—Cucumbers, from 12½ to $1 per 100—Squashes, 25 to 50 cents per dozen—Endive, 12½ to 18 cents per dozen—Chives, 8 to 10 cents per dozen bunches—Parsnips, 8 to 10 cents per bunch—Green Corn, 6 to 16 ears for 12½ cents—Mosk Melons, 8 to 18 cents each—Water do. 12 to 55 cents each—Native Grapes, 4 to 12½ cents per half peck—Plums, 12½ to 18 cents per quart—Apples, 12½ to 37½ cents per bushel—Pears, 25 to 50 cts. per bush. Gooseberries, 4 to 8 cents per quart—Raspberries, 3 to 5 cents per basket—Whortleberries, 6 to 9 cts. per quart—Blackberries, 4 to 8 cents per quart—Peppers, 50 to 75 per 100—Tomatoes, 25 to 75 cts. per half peck—Eggplant Fruit 9 to 2 lbs., 6 to 10 cents each—Sage, Thyme, Hyssop, Sweetmarjorum, Sweet basil, Balm, Tansey, Horehound, and a great variety of other herbs, in great abundance from 10 to 14 bunches for 12½ cents.

The supply of vegetables this month has been very abundant, and the quality excellent.

[*N. Y. Farmer.*

FALLEN FRUIT.

Be very careful to gather all punctured or decaying fruits, whether on your trees or on the ground, and give them to your hogs. If you do not, the worms which they contain, and which have been the cause of their premature decay, will make their escape into the ground, and you will find the evils which await their visitations will increase upon you another season.

The orange, lemon, citron, lime, olive, &c. are cultivated to a considerable extent in Florida, where they thrive and flourish exceedingly well—great quantities of the former, particularly, were raised the last year—15,000 having been gathered at St. Augustine alone.

The Tea Shrub has been naturalized in Asia with complete success, so that sooner or later, the Chinese monopoly will come to an end, and with that end, probably, the Celestial Empire will break in pieces.

LADIES' DEPARTMENT.

THE WEDDING RING.

"THINK WELL ON IT."

Reasons for the use of the Wedding Ring in the Marriage Ceremony.

1. As by turning a ring forever no *end* can be found, so the friendship cemented by marriage should be *endless* and *perpetual;* not even broken off finally by the interruption of death, but the marriage party separating merely during the night of the grave in sure and certain hope of meeting again on the morning of a glorious resurrection, when all that was pure and lovely in the union, shall be more so still, with the high additional perfection of continuing uninterrupted throughout the *endless round* of a blessed immortality

2. As the marriage ring should be made of *pure gold,* which is the most pure or simple of all metals, so the marriage union, cemented by that impressive pledge given and received, should be pure in its origin, pure in its continuance, and so pure in all its motives as to contra distinguish the contracting parties from all intimacies founded upon cross or carnal principles, and as nearly as possible resembling the love of Christ for his spouse the Church, who so loved the Church that he gave himself for it.

3. As gold of which the marriage ring should be made, is esteemed the most *valuable* of all metals, so the love and friendship implied in the marriage ring should ever be considered as infinitely more *valuable* than any other system of which human nature is capable.

4. As gold is the most compact or least porous of metals, so the marriage love and friendship should be so closely cemented by the blending into each other of all the kind and good affections of the parties, as to leave no possible aperture or opening for the introduction of any strange or forbidden affection. Each party should always be prepared to say of the other,

> "Thy loveliness my heart hath pre-possest,
> And left no room for any other guest."

5. As gold, by the action of the most intense heat, even in a crucible, cannot lose any particular of its original weight and worth, but comes out of the crucible as heavy and as valuable as when it was put in, losing nothing in consequence of the fiery ordeal, except whatever portion of dross or alloy may have been incorporated with the pure metal; so the most severe afflictions, and fiery persecutions, which may be the portion of the marriage parties, during some of the changes of this mortal life, should never be able to deteriorate or take from the marriage union ,any part of its intrinsic worth or beauty, but the parties should rise from the furnace of affliction and the dishonours of the grave without having lost any thing except the grosser particles of earth and sin, which may have unhappily attached themselves to the mystic union which was intended to secure their felicity.

6. The marriage ring should be perfectly *plain;* that is, no *chased, raised,* or *artificial work* should appear on its surface—implying, that the marriage union should not be the result of an *artifice,* on account of *wealth, equipage, honor,* or the *undue influence of friends,* but the plain result of an honourable and religious affection between the contracting parties and that God who first instituted the only estate of matrimony.

7. As gold is an *incorruptible* metal; that is, if thrown into the mire, or embedded in the most impure soil, it will never become corrupt, corrode, or imbibe one speck of rust or impurity, so should the marriage love and friendship, however it may be sometimes obliged to descend from the elevation of

affluence into the deepest valley of penury or distress, be doomed "to waste its sweetness on the desert air," be incarcerated within the gloomy confines of the prison cell, or associate with the poor, the mean, or the illiterate, still, like its incorruptible emblem, should it continue as bright and beautiful as ever.

8. As gold is the most ductile of all metals, so that an ounce can be beaten out to cover an acre of land, or gild a finely attenuated thread to embrace the circumference of the world's surface, so should the results of the marriage union fulfil the original command, to increase, multiply, and cover the earth with "The precious sons of Zion, comparable to fine gold."

9. As the marriage ring exhibits nothing to imply pre-eminence of the one party over the other, notwithstanding that the word *obey* is applied to the Lady rather than the Gentleman, yet the Gentleman, should ever recollect, that as, in forensic Courts, especially Courts of Equity, the Plaintiff must appear with what is called, "clean hands," in other words have fully done his part and duty; so before the husband can have any right to *command*, or the wife be under obligations to *obey*, he must remember the rest of his love and sincerity, which is given in Holy Scriptures: viz "Husbands, love your wives, as Christ loved the Church," but how did Christ prove his love for the Church? by dying for it. When a love, of which this is the model, predominates in the husband's heart, he can require no obedience from his wife, but what she will ever feel it to her honour, privilege, and delight to render.

When a lady "reads, marks, learns, and inwardly digests" the foregoing, with all its implied suggestions and endearments, and then glances at the honoured finger, which bears the pure insignia of such voluminous delight and serious responsibility, how inexpressibly happy she must feel that she can be at all times, and under all circumstances, the bearer of so dear and portable a pledge of all that constitutes real terrestrial felicity, and may she often recur to the title or motto, and "Think well on it."

"This love worth commending,
Still beginning, never ending."

The following beautiful lines are from the pen of Mr. **James W. Miller**, one of the editors of the Yankee, who is now in Europe.

GAELIC SONG.

"N'dian u ruidh air falbh leam."

Wilt thou flee away with me—
  Maiden with the locks of gold?
Heaths are wide and hills are free,
  Thy chief's heart is true and bold:
Seek with me the shaded glen
  Where my father's halls arise;
True—the night is dark—what then?
  Stars are in thy clear blue eyes:
Come! I hear my good gray steed
  Neighing by the green-wood tree;
Maiden, now for daring deed!—
  Wilt thou flee away with me?

Maiden, with the golden hair,
  Lean thou from thy lattice high;
Send thy sweet breath on the air,
  Let me feel that thou art nigh:
See! the cloud is lifting fast,
  Starry lights are bursting forth,
High the circling glows are cast,
  Streaming from the wizard north;
Wilt thou bless thy lover's arms?
  His lone bowers are sad for thee,
Birds await thy sun-light charms—
  Thither, maiden wilt thou flee?
Saw I not thy tresses' gleam,
  Waving on the gentle wind?
Like as in a blissful dream,
  Heard I not thine accents kind?
Such bright glory never wreathed
  O'er the northern hills aloft,
Starlit hollows never breathed
  Echoes half so rich and soft:
Vanish'd! ah, how sad and drear
  All the fainting stars look down!
What light foot comes stealing near?
  Maiden!—now thou art my own.

Pant not thus thou timid fawn,
  Folded on thy lover's breast;
Thou might'st roam the wide world's lawn
  Nor find holier lair to rest:
Come, my good steed, from the glade;
  Stilly wave ye forest bowers:
Reach thy glooms thou friendly shade;
  What free joy will soon be our's!
Holy night that never heard
  Vows so true as mine shall be:
Maiden, trust thy chieftain's word—
  "I will flee away with thee."   M.

SPORTING OLIO.

GUM SPRING RACES.

[An interesting race was run on the Gum Spring course in Loudoun county, (Va.) on the 6th May last, of which we have seen no account published. The following is derived by letter, from a much esteemed correspondent.]

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A sweepstake for untried colts was run over the Gum Spring course, in Loudoun county, Va., on Wednesday last the 6th of May Mile heats—ten entered, viz: Capt. George H Terrett's horse Paragon by Virginia Eclipse, Major J. Lewis's filly by Contention, N. Lufborough's filly by Roanoke, Mr. Ashton's filly by Red Eyes, Dr. Macrae's horse by Charles, Mr. Beard's Contention, Mr. Stevens' Columbus, Mr. Gulivan's ————, Mr. Harrison's ———— by Red Eyes, and Mr. Whiting's Contention. The three last did not start. Seven started, and at the going off Mr. Ashton's filly took the lead and kept it about half a mile, when Paragon passed her with apparent ease; he was immediately attacked by Mr. Lufborough's filly, and she contended for the heat with all the power of which she was mistress, but Paragon beat her with great ease.

At the proper time for starting the horses were called up for the second heat, when Paragon's groom had not time to put on his martingal with which he had been regularly trained. At starting Mr. Lewis's filly put at him, and the heat was very warmly contested by her; but to the great gratification of some, and contrary to the expectations of many, Paragon maintained his ground and defied all her exertions, and won the race with great ease. The rider of Paragon did not carry a whip, and there were no marks of the spurs left upon him. This last heat was of intense interest; and before starting the bets were much in favour of Mr Lufborough's filly, and some were made taking her against the field. When we consider Paragon's age, not 4 years old till the last day of August next, and the rapidity of his growth, being now 15 hands 3 inches, there is no doubt he will make a very superior turf horse. It must be very highly gratifying to the lovers of sport in this part of Virginia, to see the very manly sport of racing reviving; and it is peculiarly gratifying to me to know that a spirit has revived amongst us for improving the breed of our horses, which heretofore for so many years has remained almost dormant. At some future period I will send you Paragon's pedigree. I have no doubt he will contribute much to the improvement of our stock in this quarter. With great respect and regard,

Your friend and obed't serv't, G C.

MISCELLANEOUS.

(From the Vermont Chronicle.)

CHRONOLOGICAL

Mr. Editor: The following scrap of chronology may be amusing and interesting, and perhaps somewhat instructive to a portion of your readers who may not be possessed of a knowledge of the facts it contains, nor have at hand the means of obtaining it. If you consider it worthy you may give it a place in your columns:

Kings of England.

The number of sovereigns that have reigned in England since A. D. 455, including the present King, is 183: of this number, 104 reigned prior to the year 827; at which time the governments into which England was divided, called the *Heptarchy*, were consolidated into one monarchy. The Sovereigns which have worn the Crown since that event, a period of 982 years, are 79 The Saxon family reigned from A. D 800 to 1066—266 years; and gave 16 Kings to the nation. The Norman family reigned from A. D. 1066 to 1135—69 years—3 Kings. The French house of Blois, from A. D. 1135 to 1154—19 years—1 King. The house of Anjou or Plantagenet (*French*) held the throne 331 years, from A. D. 1154 to 1485, and furnished England with 14 Kings. In the year 1400 the Duke of Lancaster usurped the throne, after having murdered the Duke of York; and from this time the two rival families were engaged in continual feuds. At length the nation was plunged into a civil war, which raged from 1452 till 1485; and in which most of the Princes and families of York and Lancaster were slain. These rival houses furnished each 3 Kings, and the two branches were united in Henry VII. and peace restored on his accession to the throne A. D. 1485. Henry was the first of the Tudors; and this family wore the Crown till the year 1603—118 years, and gave to England 5 Sovereigns. The Scotch family of Stuart next succeeded, and filled the throne till the year 1714—111 years; in the persons of 6 Sovereigns. To them succeeded the present house of Brunswick, who have given 4 Kings, and swayed the sceptre 115 years.

Of the whole number (183) 46 were killed; about one half the number in battle, the remainder by other means. Two were accidentally killed—one, viz: Charles I. beheaded—and the remainder were destroyed, either by poison or assassination. Seven abdicated the throne--eight were deposed—and one became a Monk. The shortest reign was that of Osbald, *twenty-seven days*, A. D 796:—the longest was that of George III. from 1760 to 1820—60 years. We have the record of but little more than 200 legitimate children, though this is probably not more than one third the true number; as before the Norman conquest nothing, or at most, little is said of any except those that wore the Crown. In addition to these we have the names of 25 *natural* or illegitimate children, which probably falls very far short of the truth. England has had, since the Norman conquest, three Queens, who have governed as Sovereigns in their own rights, viz. Mary, crowned A. D. 1553—Elizabeth, crowned A. D. 1558—and Anne, in 1702. In addition to these was Mary, the sister and predecessor of Anne, who shared the throne and government with her husband, William III. The most conspicuous persons, considered usurpers are Stephen, of the house of Blois, A. D. 1134, and Richard III. (*the humped back*) Duke of York, A. D. 1483, and Oliver Cromwell, who took the reign of government with the title of Protector, after the execution of Charles I. (1650.) In calling the house of Brunswick to the throne, England has restored the line of her ancient Kings—that family being descended lineally, through the female branch, from Wooden, the ancient Saxon King.

Kings of Scotland.

The house of Fergus reigned from A. D. 404 to 1370—966 years, and gave to Scotland 60 Kings. The house of Stuart reigned to the year 1603, the period when the union took place between England and Scotland, 233 years, and gave 9 Sovereigns; making in all 69. A singular fate seems to have attended the Scottish Kings,—of their whole number, no less than 30 came to their death by violent means, and by accident. Ten were slain in battle—12 were murdered, (3 of them by their wives or through their instrumentality)--2 were drowned; one died in prison--one starved to death; two were beheaded—one died of grief—one of the bite of a mad wolf, and one committed suicide—two are uncertain. The two principal usurpers, Grimus and Macbeth. James VI. afterwards James I. (of England) was the last Scottish King, and the son of Mary, who was treacherously imprisoned by Queen Elizabeth eighteen years, and then cruelly beheaded by her order, to her everlasting disgrace. In him the two crowns were united, and the Scottish monarchy became extinct, as an independent government, in the year 1603. The shortest reign recorded is six months, and the longest forty-nine years: in the person of William, surnamed the Lion, from the year 1164 to 1213.

SEAT OF JOSEPH BONAPARTE.

Leaving Philadelphia by the Bordentown route, you pass point Breeze, as it was called by Stephen Sayre, once Sheriff of London, of whom it was purchased by the present owner, Joseph Bonaparte, once King of Naples, Spain, and the Indies. The house he first built was burnt—some say by the Holy Alliance, in order to destroy the written proofs there preserved of their imperial and royal meannesses. Where it stood there is now a very high Belvidere, which contains a chapel, and commands extensive views of the picturesque scenery surrounding it for many miles. A marshy creek that used to creep through the grounds, by letting in the river, has been swelled into a fine sheet of running water, improving as much the health as the prospect. The grounds are mined by curious and extensive subterranean passages, which lead from the present mansion to the Delaware. It stands rather nigh the road, and consists of a central building, flanked by towers. There are, besides, several other dwelling houses in the enclosure. About sixteen hundred acres of land are attached to it, divided into several farms, and pervaded by roads, cut for rides, along the river, around the lake, through the woods, and otherwise, so as to afford pleasant excursions about the premises. The Count, as he is entitled, or Mister Bonaparte, as the country people sometimes call him, has expended a great deal of money in improvements, of which the neighbourhood, and, indeed, every body, partakes, on the highways. His tenants account for their rents in making roads, clearing woods, and the like; and Bordentown is greatly indebted to his residence for its revival. On Sundays the house and grounds are frequented by crowds of visiters from Philadelphia and elsewhere, to whom every thing is thrown open. Nothing can exceed the kind and cordial hospitality of the philosopher, whose happiness it has been for many years to improve this retirement. A distinguished person, speaking of his excellent government of Naples, compared him to Plato on the throne: to which it may be added, that he substitutes Point Breeze for thrones without a murmer. Many respectable Americans, formerly, could not think of a Frenchman without aversion, or, of Bonaparte, without horror. All such as have become acquainted with the instance of both, who so quietly and respectably dwells in New Jersey, have surrendered their prejudices, without other effort or influence on his part than the constitutional amenity of his conduct, candour of his conversation, and constancy of his principles. Instead of losing by approach, he never fails to gain. Abounding in the most interesting recollections of the great events, and men of modern Europe, and speaking freely on all subjects, hatred, anger, revenge, and detraction, appear to be foreign to his nature. Among other proofs of a sincere and kind disposition, it is delightful to hear him declare, as he does, with uniform earnestness, that the much abused Napoleon was as amiable and well disposed as is the grateful brother who bears this testimony to his character. The domestics, some of them, who served him twenty and thirty years ago, are now in his family, at Point Breeze, where all deserving guests are welcomed with a reception which leaves none but the most agreeable impressions. The state of New Jersey owes to his arrival there the repeal, Pennsylvania the modification, and New York, (it is believed,) also the repeal of the odious and preposterous common law, preventing foreigners owning real estate, which is discrediting to any commonwealth where it exists. It is impossible to think of Spain without regret that so fine a country should have unfortunately deprived itself of the melioration which Joseph Bonaparte's government would have established there, instead of its present degradation.

(From the St. Louis (Missouri) Beacon, July 4.)

Smuggling in the West.

Progress of the Tariff on Woollen Goods.

In the year	1790, first laid,	5	per cent,
"	1798, raised to	12½	"
"	1804, "	15	"
"	1812, "	27	"
"	1816, reduced to	25	"
"	1824, raised to	38	"
"	1828, "	90	"

This is the duty—but the amount of protection which the domestic woollens actually enjoy, is always 20 per cent. more than the Tariff, as the profit to the British exporter and American importer, with freight, insurance and other necessary charges, are full 20 per cent. upon the cost of the article at the manufactory. Woollen goods enjoy a protection now as high as 110 per cent. in the United States; but it seems of the tariff as of every thing else, *that there can be too much of a good thing.*—Instead of paying this 110 per cent. the British send their goods up the St. Lawrence and the Lakes, and pour them across the western frontier of the United States, without the payment of any duty at all. A regiment of infantry was ordered from Missouri last fall to take post on the Lakes to arrest these practices; but foot soldiers, shut up in forts two hundred miles apart, make but poor progress in catching Canadians, who glide over the water in dark nights, deliver their cargoes to receivers on the American side, and are back before day.

Domestic Manufactures.

The Providence (R. I.) Journal mentions having received two pair of cotton stockings, from the Newburyport *Hosiery Manufactory.*

In appearance these stockings are stated to be quite equal to the imported article, and probably much more durable. *Cotton bagging* is manufactured in the vicinity of Providence, from refuse cotton, which surpasses that made from hemp. In a very short time, the Journal thinks they will be able to supply the southern market with bagging, from the raw material itself, at a very reduced cost.

THE SPIDER.

The Spider, against which there is so strange and general a prejudice is in reality a most interesting family. The natural history of the *Aranea diadema* is remarkably so. One day last summer, I saw a small garden spider on the back of a lime leaf, and by it what appeared to be a minute white blossom, I took the latter into my hand, when a friend, who was observing the movements of the little spider, remarked that it became suddenly agitated. What I had removed, was the bag that contained its eggs; I immediately replaced it. There were several little holes in the leaf; the spider fastened several threads to the bag, until the line was strong enough to draw it, and then, partly by drawing, and partly by pushing with his legs and body, brought it to one of the holes, and drew it through to the under side of the leaf. My friend again turned the leaf, exposing that side to the light, and the spider hastened again to remove it into the shade. It was curious to observe, that the insect not only conveyed the bag again to the other side of the leaf through one of the holes, but that it drew a line across, and passed over the hole it had drawn it through before, and conveyed it through the next. We then laid the leaf aside; and on looking at it again sometime afterwards, found the spider and its bag stationary in the very spot in which we had left it. The eggs were in the security of darkness and it was satisfied.

[*Englishman's Almanac.*

He that can look with rapture upon the agonies of an unoffending animal, will soon learn to view the sufferings of a fellow creature with indifference, and in time he will acquire the power of viewing them even with triumph, if that fellow creature should become the victim of his resentment, be it just or unjust. But the minds of children are open to impressions of every sort; and indeed, wonderful is the facility with which a judicious instructor may habituate them to tender emotions. I have therefore always considered mercy to beings of an inferior species as a virtue which children are very capable of learning, but which is most difficult to be taught, if the heart has been only familiarized to spectacles of distress, and has been permitted either to behold the pangs of any living creature with cold insensibility, or to inflict them with wanton barbarity. [*Parr.*

Original Anecdote.

A few years ago, a couple of Dutchmen upon the high hills of Limestion, though very friendly, had a dreadful falling out about one killing the other's dog, for which he sued for damages. They were called into court, and the defendant in the case was asked by the Judge if he killed the dog. "Be sure I kilt him," said the Dutchman, "put let him proof it." This being quite satisfactory, the plaintiff in the case was called on to answer a few questions; he was asked by the Judge, to what amount he estimated the damages; he did not understand this question so well; so to be a little plainer, the Judge asked him what he thought the dog to be worth.—"Be sure," said he, "the dog was wot notting, but since he was so mean as to kill him, he shall pay de full walue of him." [*Claiborn Herald.*

A Fish paying Tribute-money.

One of the men on board the schooner Blank, Captain Hopkins, which arrived at Truro, on Sunday last, drew up a fish, while at the *banks*, having in its *maw, six half dollars.* [*Barnstable Gazette.*

THE FARMER.

BALTIMORE, FRIDAY, AUGUST 21, 1829.

We passed the last two days in that highly cultivated, beautiful and healthy district of Baltimore county, on "*the Western Run,*" on either side of the turnpike; and if we had yielded to our own inclination and the strong temptations held out by the hospitality of the neighbours, we should have remained two weeks.

We scarcely think the beauty of that romantic, and, in miniature, mountainous region, can be generally known; or it may be, that teeming with luxuriant crops and clothed yet in the deep verdure of June, it appeared to us even more enchanting than usual. There can however be no mistake in the salubrity which must arise from its springs cool and copious; and air—so pure and elastic, that you respire it almost insensibly, and the body and spirits become animated as if suddenly relieved of an oppressive weight—not a spear of grass is yet fired, not a leaf has fallen; the whole country reminds us of what we have often heard of the perpetual verdure of England and Ireland. The very ladies seemed to be, if possible, more kind, and to look sweeter than usual. Considering how limited and how irregular is the help and assistance spared from the farm to the homestead, it is wonderful what ample provision these good housewives contrive to make of fine butter and rich cream, and fat poultry and fresh vegetables, and all the various fruits of the season.

With such matrons presiding at the sumptuous table, and lovely daughters, whose rosy cheeks proclaimed the healthiness of the country, to "lend enchantment to the view;" well might a grateful and admiring guest, when called on by a Farmer present, for his prevailing thought, respond in the fullness of his heart—"The Farmer-*esses*—Heaven bless them! What would Farmers do without them? They give to life its lustre and perfume, and ye are weeds without them."

☞ NEW YORK MIRROR.—It is seldom we take the liberty of intruding our advice with respect to the publications most suitable for families. There is one, however, which we would recommend, particularly to the ladies—it is the "*New York Mirror and Ladies' Literary Gazette,*" published every Saturday by George P. Morris, at $4 per annum. It is an excellent miscellany, devoted to the instruction and amusement of the younger members of society, but in the pages of which the middle aged and old may find much worthy of their attention. It is embellished with occasional elegant copperplate engravings of public edifices, &c., and each number contains a piece of original music, generally arranged for the piano forte. It is one of the most beautifully printed papers in the United States, and its columns are carefully guarded by its intelligent editor, as well from any thing calculated to wound the sensibility of the most delicate modesty and strict morality, as from sectarian allusions in religion and partisan discussion in politics. Little more need be said, we should think, to induce every head of a family to lay it upon the toilet of their daughters.

GREEN BEANS.—We were last week presented with a few green beans, of a variety new in our market, by Messrs. Sinclair & Moore. They are pole beans, and of an excellent quality, and very productive. The pods are as fleshy and tender as the best French beans, even when beginning to turn yellow; and thus they admit the full growth of the bean in the pod, which is very rich. A remark made by Mr. Sinclair, illustrates their good properties better than any thing we can say: He observed that, in consequence of their great productiveness and richness, they were "the best poor man's beans I am acquainted with." There is one thing in green beans generally lost sight of; that is, the pod contains but little nutritive matter in comparison with the bean; and thus, those which admit the full growth of the bean without the pod becoming tough and useless, are far more nutritive than those called French beans, and others which are necessarily gathered when the bean has scarcely formed, to insure their tenderness. If, therefore, *nutrition* forms any part of the object of eating, and it is thought that modern philosophy has not yet entirely exploded this old fashioned theory, green beans which admit the full growth of the bean, such as friend Sinclair's, ought always to be preferred over those of a different quality.

☞ A correspondent complains of the exclusion of female animals kept for breeding, but not raised in the State, from a competion for premiums, at our cattle shows, and thinks they ought to be admitted as well as males. There is much reason in the suggestion, and it is commended to the notice of the Agricultural Society.

THE CROPS OF CORN IN VIRGINIA.

Extract—*Richmond Aug.* 17, 1829.

The crops of Indian corn in Virginia surpass any thing ever known before. Even on the thin forest lands they are excellent, but on the banks of the rivers they are astonishing. As I came up James River, a field of reclaimed swamp, belonging to a Mr. Aiken of Petersburg, appeared from the density of the growth, to have been sown broadcast.

The Richmond Compiler of Friday last, says—The corn crop is unusually promising in the different parts of Virginia, from which we have any accounts. An intelligent gentleman remarked to us yesterday, and he was 70 odd years of age, that *he* had never seen in his section of the state the indications of a more abundant harvest. The tobacco is said to promise a large crop; but the quality does not probably correspond with its quantity. It has, as it were, overgrown itself, in consequence of the copious rains that have fallen during the season.

Port-Gibson, (Mississippi,) July 25.

Since our settlement in the country, we have not witnessed so wet a season as the present. Indeed our oldest citizens do not recollect its parallel. The winter was remarkable for the number of its rains; they continued to flood the country through the spring; and, contrary to all prognostic of a dry season, usually consequent, they have not yet ceased. The rains, for the last six months, will average, we are confident, more than one in three days, and some of these the most copious, and others continuing the day through. In the six months, we do not recollect but one week of clear weather, while several, of continued drizzly showers, are fresh on the memory.

LATEST FOREIGN NEWS.

By arrivals at New-York from Havre and Liverpool, intelligence is received to the 8th July, about one week later than previous advices. The news from the seat of war in the East, is highly favorable to the Russian arms. The defeat of the Turkish army on the 11th June, was followed by the almost total rout of the forces of the Grand Vizier, north of the Balkan mountain—nothing remaining but the garrisons of Silistria and Choumla. The following is the Russian official account of the movements succeeding the battle of the 11th June:

"WARSAW, June 10 (22).

"The rout of the Ottoman army has been so complete, and the pursuit confided to General Count Pahlen executed with so much vigor, that, with the exception of some cavalry, who appear to have fallen back towards Aidos, the remains of his army have not been able to rally any where. The Grand Vizier had succeeded in getting into Choumla, accompanied by a feeble escort of cavalry. Our parties of Cossacks brought in every moment fresh transports of prisoners, cannon, baggage, and colors, taken from the Turks in their flight. The number of cannon taken amounts already to nearly sixty, and the loss of the enemy in killed is about 6000 men. Ours was also considerable in the battle of the 30th May, (11th) and amounts to 1400 killed, and 600 wounded, amongst whom are two Generals.

"A body of 1,500 horse, with infantry, having left Choumla, probably to watch our movements, had occupied with the infantry and artillery two of the redoubts which we had constructed last year.—The cavalry had marched forward to cover them. General Roth, who was proceeding to the village of Marasch, having observed the cavalry, ordered forthwith General Prince Mendatoff to make a charge with some squadrons of the hussars of Alexandria and Akhtyr, and six pieces of light artillery. This charge completely succeeded; the enemy was overthrown, and fell back with the loss of two standards.

"In the pursuit of this detachment, the General found himself under the fire of one of the redoubts; but immediately making a part of his hussars dismount, he marched at their head, and in a moment carried the redoubt, where the Turks left two cannon and two standards.

"The second redoubt was occupied by nearly 500 men, protected by a battery, which showered grape shot upon our troops.

"After having reformed his detachment, and united some companions of chasseurs and infantry, Prince Mendatoff ordered an attack with the bayonet instead of answering the fire of the Turkish musketry, and carried the redoubt. Five cannon and twelve standards were the trophies of this brilliant feat. But the excitement of the soldiers was such that few prisoners were taken. The enemy left nearly six hundred dead on the spot, and we lost one hundred in killed and wounded.

"The Imperial army was full of ardor, notwithstanding the fatigue of five consecutive forced marches, followed by a battle which was disputed for some hours with the greatest fury."

CORFU, *June* 11.—Advices from Egina state that the protocol of the 23d March, recognizing the sovereignty of the Sultan, without defining the limits of Greece, had created great dissatisfaction, which was increased by the pretensions of the English Consul General, who, having obtained an audience of the President of Greece, demanded of him the raising of all the blockades, the recall of all the Greeks in the interior of the Morea, and the cessation of hostilities against the Porte. The President formally refused to cease hostilities and to withdraw the Greeks from Livadia, and informed the British Consul that his duty forbade his giving up the advantages already obtained, and that he would only yield to superior force. He, at the same time, despatched orders to all the commanders not to quit their positions. The Count has also sent a vessel to the Ambassadors who are repairing to Constantinople, to inform them of the resolution of the President of Greece. It is not known what effect this may have on the mediating powers, but it is seen that the Greeks refuse the protectoral and the armistice that should precede the intervention of the powers at Constantinople.

Riots in Ireland.—The papers bring many accounts from Ireland, of riots and murders. The ill-blood between the Orangemen and Catholics has not become cool, and the fairs are fruitful of brawls. At the fair of Borrisokeane, a house was attacked by previous arrangement. Several armed men were assembled within, for its defence. They fired, and three of the rioters were killed, and two mortally wounded. At Miltown Malbay, a man was shot by the police. There had been a desperate riot at Manorhamilton, which the military were called from Sligo to quell. Four men were killed, and many wounded. Individual instances of robbery, outrage and murder, are too numerous to be recounted. Great alarm begins to prevail, particularly in the northern counties—Sligo, Leitrim, Cavan, and Monaghan; but in Fermanagh, according to the concurrent reports which are received from that county, the parties are actually organizing for a battle. A district meeting of the Masters of the Orange Lodges was held in that county on the 1st ult. when it was resolved unanimously that the Orangemen of Fermanagh should continue to assemble as usual for the purpose of protecting themselves against the "innovations of Popery." It was further unanimously resolved, to place no further confidence in Government, by which they had been betrayed.

Liverpool Markets.

A letter from a very respectable house in Liverpool of the 7th ult. says—The decline of the past week on some descriptions of Cotton, was ¼d. This week so far, it adds, the business done has been very limited, the arrivals are large and the market feels heavy, and we shall not be surprised if some further trifling decline takes place before the demand becomes active again. Nothing new in the state of trade at Manchester.

Flour is scarcely inquired for, and good New York may be had now so low as 35s, and even less would probably be taken if offered for a quantity. For Flour in bond 29s. would be taken. The last week's average was 69s 4d, making the aggregate 70s 5d. The duty may remain at 10s 8d for another week, but after that it will rise materially.

Liverpool, July 8, (*Evening.*)—The sales of Cotton to-day are about 2500 bales. The large import since the 1st, (about 35,000 bags) induces purchasers to offer lower prices, and holders have met them today at a decline of 1 8d. The export demand for yarn is great, and they had a fair market day at Manchester yesterday.

From the London Price Current of July 7.

Cotton.—There has been rather more demand during the past week, and a fair quantity has been sold at very steady prices.

London, July 7.—The accounts from the country throughout, correspond, as to the general improvement in the crops, and the dull state of the markets.

Havre Market, 6th July.

Cotton.--The business has been very active for a week past and prices of United States short staple have been well sustained. Nothing has been done in Sea Islands, the stock of which is increasing. The sales of the past week amounted to 3083 bales, viz: 829 Louisiana at 84f a 112½; 1394 Georgia Uplands at 81 a105; this last price was obtained for a small lot of choice--(remainder Pernams and Bahias) Arrivals 4204 from the U. States; 111 from the Brazils; 30 from St. Domingo. Stock on hand 4th July, 26,427 bales, of which 24,607 bales are U States sorts.

Quercitron Bark New York, 15f a 18—Philadelphia 20f a 20,50

Rice.--The arrivals continue to be heavy; 1122 bags have been received from Piedmont (we state this to shew the sources of supply.) The demand is light--only 33 tierces and 28 half do. Carolina of good quality have been sold--they brought 22f--113 tierces ordinary and 60 good brought 20f, duty paid

The Crops are promising, and the sack of wheat fell 5 or 6f, at the last market day at Montivilliers.

Sales at Havre, July 7.—Cotton, 226 bales Louisiana, 103½; 100 do. at 93; 39 do. 90--60 do. at 90--449 do. at 83.

Prices Current in Boston, August 14.

Apples, best, bbl. —— a ——. *Beans*, white, bushel .90 a 1.00. *Beef*, mess, bbl. 10.50 a 11.00; cargo No. 1, 9.50 a 10.00; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.75 a 6.00; Genesee, 5.50 a 5.75; Rye, best, 3.25 a 3.62. *Grain*, Corn, bu. .60 a 62; Rye, .63 a .65; Barley .67; Oats .42 a .45. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl. 17.50 a 18.00; Navy, mess, 13.00 a 13.50; Cargo, No. 1. 13.00 a 13.50. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 2.50; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50, Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool*, Merino, full blood, washed, .32 a .45; do. do. unwashed, .18 a .22; do. three-fourths, washed, .26 *a* .32, do. half blood, .23 *a* .25; do. quarter, washed, .22 *a* .24; Native. washed .20 a .23; Pulled, Lambs', 1st sort, .34 a 36; do. 2d sort, .22 a .25; do. spinning, 1st sort, 27 a .30.

Prices Current in Philadelphia, August 17.

Bees-wax, yellow .22 a .23; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10.50 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, 7½ a .8, No. 2, 5 a .6; *Cotton*, New Orleans .10 a .12, Upland 9. a .10, Tennessee 9. a .10, Alabama 9. a 10; *Feathers*, South. .33 a .34, West. .30 a .31; *Flax* .7½ a .8. *Flour*, sup. 5.00, fine, 4.62½ a 4.75; Rye 3.12 a 3.25; Cornmeal, hds. 11.75 a 12.00, bls. 2.10 a 2.12½; *Flaxseed*, cask —— a ——; bu. ——; *Grain*, Wheat 1.00 a ——; Rye .60 a .65, Corn l. c. white, .44 a .46, l. c. yellow, .46 a .48, u. c. round, .51 a .52; Oats .30 a .35, Barley, Pa. .— a .—; do. East. .55 a .60; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .11, Virginia .8 a .9, Western .8 a .8½; *Hemp*, 200 a 210; *Lard*, .6 a .8; *Oil*, linseed, .67 *a* 68; *Pork*, mess, —— a 13.50, prime 11.50 a —, cargo 10.00 a 10.50; *Rice*, 2.50 a 2.87½; *Tabacco*, Kentucky .3½ a .6, Vir. .4½ a .7; *Wool*, common washed lb .26 a .28, half blood 28. a .31, three quarters blood .31 a .32, full blood .34 a .38; unwashed, generally 10 cents less, according to quality.

J. S EASTMAN,

Has now on hand and is constantly supplied (at his Agricultural, Horticultural, and Seed Establishment, No. 36, west Pratt street, Baltimore,) with WHEAT FANS of the most approved kinds, made of the best materials, and by good worknem; also, Cylindrical Straw Cutters, of which he is patentee, they are adapted to every kind of long forage, and surpassed by no other machine for the same purpose in any country. Likewise, a full assortment of Gideon Davis' highly improved Patent Ploughs,—the advertiser has recently made some improvement on the Shares of this Plough, which he trusts will be found an important advantage.

Also, Clezy's improved Scotch Plough, and improved Bar Share and Coulter Ploughs, of large size, Cultivators, Patent Corn Shellers, Dutch Cutting Boxes, Brown's Vertical Wool Spinner, Cast Steel Axes, superior Oil Stones, &c. &c.

Likewise, a general assortment of the Messrs. Landreths' Garden Seeds, warranted fresh and good, and at the same prices they are sold for at their store in Philadelphia. Orders will be received for Green House Plants and Bulbous Roots, from the Messrs. Landreth's splendid collection delivered here in good order, at the Philadelphia prices.

Also, Fruit and Ornamental Trees. On hand a good supply of Orchard Grass and Clover Seeds, both warranted of good quality.

P. S. Agents for the above, where gentlemen can leave their orders.

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J. G Herbert, Savannah, Geo.
Stephen Duncan, Esq. Natchez, Miss.

ALMANAC.

1829. August.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday....... 22	5	21	6	39	13	18	morn	
Sunday,........ 23	5	22	6	38	13	16	0	10
Monday,....... 24	5	23	6	37	13	14	1	1
Tuesday,...... 25	5	24	6	36	13	12	1	53
Wednesday,.. 26	5	25	6	35	13	10	2	48
Thursday,.... 27	5	27	6	33	13	6	3	45
Friday,......... 28	5	28	6	32	13	4	4	40

New Moon, 29th, 3 h. 48 m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Market.—There is no change in the prices of flour. Our quotation of Howard street is for that of new wheat; sales of old have been made at $5; the wagon price is $5 12½; City Mills flour is worth $5, two to four months credit Grain.—Sales of best white wheat have been made within the range of our quotations—a cargo of 560 bushels brought $1.08. Ordinary wheat is dull. Corn is dull at quotations. Live Stock.—There is no improvement in beef on the hoof, and the minimum rate is still further depressed.

Tobacco.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 5.00—red, 4.00 *a* 6.00—fine red, 7.00 *a* 8.00, for wrapping 5.00 *a* 10.00— Ohio, common, —— *a* ——.—good red —— *a* ——.—fine yellow —— *a* ——.—Rappahannock, 3.00 *a* 3.50—Kentucky, fine 4.00 *a* 5.00—wrapping, 4.50 *a* 7.00.

Flour—best white wheat family, $6 00 *a* 6.50*—superfine Howard-st. 5.25 *a* 5.37½; city mills, — *a* 5.00 Susquehanna, ——. Corn Meal, bbl. 2.37½— Grain, best red wheat, new 90. *a* .95;—best white do. new 1.05 *a* 1.10; ord. to good, .80 *a* .90—Corn, white, .40 *a* .41; yel. .40 *a* .41—Rye, —. *a* .53 · Oats, .— *a* .25—Beans, 1.10 *a* 1.15—Peas, .60 *a* .65—Clover seed, 3.25 *a* 3.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—Barley, .45 *a* .50—Flaxseed, .75—Cotton, Virg. .9½ *a* .10—Lou. .11 *a* .12—Alab. .9 *a* .10—Mississippi .10 *a* .12—North Carolina, .8 *a* .9—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .21½- in bbls .22 *a* 24½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* ——; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl 5.50; do. trimmed, 6.50—North Carolina, No. 1, —— *a* 5.50—Herrings, No. 1, bbl. 3.75 *a* 4.00; No. 2, 3 50 *a* 3.75—Mackerel, No. 1, 6.50; No. 2, 6.00; No. 3, 4.50—Bacon, hams, Baltimore cured, .9 *a* .10; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .30—Plaster Paris, cargo price per ton, $3.50, ground, 1.25 bbl.—Prime Beef on the hoof, $4.50 *a* $5.25.

Six dollars and fifty cents by the single barrel, for Ellicotts' Patapsco white wheat family flour.

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Complete Treatise on Horses, by an old Officer of the French Cavalry; translated for the American Farmer, continued; chap. 8 Of Putting to Grass; chap. 9 Of Grains suitable for Horses, properties, quantity to give, &c.; chap. 10 Of Straw, its advantages, &c.; chap. 11. Drink of the Horse—On Loosening and Pulverizing the Soil—On preventing the destruction of Wheat by the Weevil—Buckwheat and Potash—Silk culture in Ohio—On Feeding Silk Worms—Greville Rose—Observations on certain Insects that prey upon Peaches and Plums—Prices of Vegetables in New York—Scraps—The Wedding Ring—Gaellic Song—Gum Spring Races—Kings of England and Scotland—Seat of Joseph Bonaparte—Smuggling in the West—Domestic Manufactures— The Spider—Scraps—Editorial; Two Days in the Country; New York Mirror; Green Beans; Crops in Virginia--Latest Foreign News—Prices in the Boston, Philadelphia and Baltimore Markets—Almanac.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

A NEW TREATISE UPON WOOL AND SHEEP.

Translated from the French by the Editor of the American Farmer.

(Continued from page 148.)

Chapter II.

On the different sorts of Wool, and the manner of ascertaining their Qualities.

An important service would be rendered to the cause of industry, if our naturalists would undertake to describe, in detail, all the known races of wool-bearing animals; for the special object of making known the nature of their various products, and of furnishing to agriculturists and manufacturers, directions for the management, breeding and crossing of these animals, and the peculiarities and advantages of the different sorts of wools for manufactures.

There is observed, between the products of certain foreign as well as indigenous races, analogies which would serve to indicate a favourable condition for effecting advantageous crossings; the researches and experiments which we are making to ascertain these analogies, seem to promise some favourable results, which we shall make known, if our hopes become realized. But the impossibility of studying a great many of these races, with which we have too slight an acquaintance, deprives us, no doubt, of the most important observations that are to be made upon this subject.

In the mean while, and expecting that naturalists will attend to our demand, we shall divide the wools in general, into three great classes, viz: *common wools, mixed or mongrel wools, (laines metis,)* and *merino wools.*

The common wools, and particularly the mixed wools, are precisely those that present innumerable varieties, of which we have been able to study but a small number, notwithstanding the trouble we have taken to procure a great variety of samples in our visits through a great number of sheep folds. As regards these, therefore, we have but little to say; but we will turn our attention more to the merino wools of a pure race, which are more easily classified; and the produce of which, besides, is more particularly interesting to our agricultural and manufacturing industry.

Section 1.

Of the Common Wools.[*]

The common wools, like other wools, present certain very distinct *characters;* thus some are more or less frizzled, or curly, (*ondulées*); generally, however, their distinctive character is *smooth* or *crisped.*

It must be remarked, that among the common wools, those that are the *finest, softest* and most *supple,* are (with very few exceptions,) those that come nearest to having the characters of *frizzled* and *curly,* and the curls of which are most regular. Of this we may become satisfied by examining some of the common wools of Normandy, Picardy, and other parts of France more particularly those of *Berry* and *Roussillon* which have appeared to us to be the finest.

The common wools, which are frizzled or curled (*ondulées,*) are generally short; the longest scarcely exceed, in *real* length, four inches and a half; the shortest being not less than three inches. What particularly distinguishes them, is their great susceptibility of extension. Of all the common races, the sheep which yield this wool are those most easily benefitted by receiving merino blood.

The common wools that are *flat* or *smooth,* are generally very coarse and not susceptible of those modes of elasticity which we have described as favourable in the fulling operation; but they are not wanting in that species of softness which is a result of the *uniformity of the fibre* (*brin;*) their stem is equal and of regular growth. They vary in length from three to ten inches; the *Rio de la Plata* wools, which are of this latter length, and which are used by certain manufacturers for the list of cloths, are, we have found, the longest and the coarsest; they are, in this latter respect, somewhat like horse-hair.

The shortest *smooth wool* with which we are acquainted, we found in *Souabia;* it is about three inches long, and very coarse and dry.[*]

The common wools, the character of which is that they are *crisped,* generally present a very unequal *growth,* and their fibres have no uniformity; they have very little *softness,* and are barely more supple than smooth wools. We have by us, a specimen of crisped wool from Africa, the real length of which is about ten inches, we have never seen any longer; its growth is very confused as far up as the two thirds of its stem. The crisped character which this wool exhibits at its base, decreases going towards its extremities, and the stem terminates within the last third of its length in a straight and smooth end; its crisped character has not bestowed upon it the *elasticity of contraction;* for it may be broken without losing its character. The fibres are very unequally fine, even varying in this respect, between their base, or root, and their ends.

There has been found upon certain races of merinos (of doubtful purity of blood to be sure,) a sort of wool, coarse, crisped, and extending beyond the length of the fleece. This wool, which we term *bigotes,* or *goat wool,* or *poil de culotte,* bears some analogy to the *common crisped wools;* it indicates in the animal which bears it, but an indifferent degree of fineness.

We have not as yet spoken of the *Jarre,* which is rather a *hair* than wool, we may have occasion to notice it hereafter.

Section 2.

Of the Mixed or Mongrel Wools.

Confining ourselves even to those wools that are the produce of merino rams with ewes of common breeds, it is evidently impossible to classify the mixed wools, in consequence of their innumerable varieties. Hence, as we have already remarked, we shall not be able to say much about this wool, which, from its nature, must necessarily offer mere modifications of all the others; besides, in the second part of this work, when treating of *sheep,* we shall have occasion to speak of the principles of mixing wools, (*métissage,*) and we shall then make known some views which we believe to be useful. In the meanwhile, we will simply state that this operation has met, in various parts, with complete success, and there are, particularly in Saxony, mongrel wools so perfect that they cannot be discriminated from merino wools of the finest qualities. Every thing, therefore, which we may have to say of these will apply to this class of wools; as to those that have not as yet been so far improved, it will always be easy to recognize them by the want of uniformity in the fineness of their fibres, and the inequality of their *growth.*

Section 3.

Of Merino Wools.

We have devoted much study and attention to the different varieties of merino wools, with a view of classifying them in such a way as to be serviceable in practice.

Thus, all the superfine and fine merino wools we arrange in four classes, as follows:

1st	class,	wools of	super-fineness	(*haute finesse.*)
2d	do.	do.	good fineness	(*belle fineness.*)
3d	do.	do.	mid. fineness	(*médiocre.*)
4th	do.	do.	inferior do.	(*f. inférieure*)

We should have taken for the basis of this classification, the mean results of the mensuration or measurement of wools, if the instruments invented for that purpose were more generally known, and if their use were not too difficult and too delicate not to give cause, sometimes, to serious practical mistakes. However, although we reject this basis of classification, it may not be uninteresting to our readers to know the dimensions of the diameter of the fibre, which, from this system of measurement, we would assign to each class.

1st	class,	diameter of	the fibre,	110 to 140	of a line.
2d	do.	do.	do.	80 to 110	do.
3d	do.	do.	do.	65 to 80	do.
4th	do.	do.	do.	40 to 65	do.

But we have indications that are more easily perceived, more under the eye of each observer, and less liable to err: 1st, as regards the form, or *character of the lock* (*mèche;*) 2dly, the individual characters of the fibre which compose this lock; 3dly, the various relations existing between them.

In order that we be better understood, we will say a few words on the growth of the wool, and the formation of the locks in the fleece.

The fibres, on leaving the cuticle or skin, seem to be attracted to each other; they combine variously, in different ways and quantities, according to the fineness of the wool. Sometimes they rest one upon the other, and grow out together in small bundles, more or less united, as we shall have occasion to remark, is the case with the superfine wools. Sometimes they cross each other, by a sort, as it were, of natural *felting;* this is the case with the middling and inferior sorts of wools. Finally, they grow out straight without pressing against each other, or bundling, or intertwining, as in the case of the common smooth wools. These different masses of fibres or locks, once formed, are more or less distinctly separated from the adjoining masses, and they all terminate on the surface of the fleece in different shapes.

Hence, the growth of the wool may be said to be either *regular* and *parallel,* or *irregular* and *confused;* the lock may be *small, thick, square, pointed, flattened,* &c. &c. These observations we shall not fail to apply.

Let us now pass to the examination of the four classes of merino wools, which we have formed, begging leave to call the attention of our readers to the minute details which we have thought it proper to enter into, as regards the characteristic signs by which each sort is distinguished.

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[*] In England, Denmark, Sardinia, and other countries, there are wools of particular qualities which we should have been pleased to give an account of here. In England, particularly, there are several sorts, which of themselves would require a distinct treatise, in consequence of their importance in the manufacture of worsteds (*étoffes ses*) and knitted stuffs (*tricots.*) It is our intention to bestow particular attention upon them; the sheep which produce these sorts of wool are not found in France, and nothing could be more desirable than their introduction. Unless greatly disappointed in our expectations, we may probably contribute with success to the achieving of this conquest, of such value to our national industry.

[*] We saw, in one of the parks of H. M. the king of Wirtemburg, a Nubian sheep, the wool of which deserves particular mention. It had been sheared the preceding spring, and its wool was already, at the beginning of January, four inches and a half long, and most probably would become seven or eight inches long. Its characteristic difference, from all other common wools of that class, is its relative degree of fineness, which was pretty remarkable, and the equality or uniformity of its fibres, in proportion to this fineness. In its growth it seemed to us regular; that is, the stems were of equal length and form, and the fibres of which they are composed do not intermix; the end of the stem unites the whole of them, within two or three whirls in the length of an inch. We found, likewise, in this wool a good susceptibility of extension and of softness. If the breed of this sheep were within our reach, we should not fail to attempt its crossing with a merino breed, for the sake of obtaining good combing wool.

First Class.

If a portion of fleece, about the size, for instance, of a dollar, be taken with the shears off the back of a full blooded merino, and this be done with great care, it will be perceived, in the first place, that this wool is composed almost entirely of small assemblages of fibres, about the size of pins, sometimes a little larger. The smallest among these bundles,[†] may contain between fifteen and twenty fibres, and the largest from thirty to thirty-five. These fibres are so nearly parallel to each other, their undulations are so uniform, and sometimes so intimately subservient one to the other, that they seem then, to form a single filament very distinct and regularly undulating in its whole length.[‡]

These assemblages or very small locks,[§] would each terminate at distinct points on the surface of the fleece, if accidents, such, for instance, as their rubbing, did not destroy their symmetry as they approach the surface, or that their extremities were not frequently otherwise united at random. However, the sample about which we are presently interested, preserves a size nearly equal throughout its whole length, which is a proof of the great regularity and parallelism of its growth. It does not terminate in a point, which we shall have occasion to show is the case with those classes that we will presently describe.

If, now, on one of the fibres of this wool, or one of the bundles of them, the number of undulations be counted between the length of an inch, they will be found to amount to from twenty-eight to thirty-eight, and sometimes more, twenty-eight is the minimum which we allow to the first class.[||]

As to the mean length of the superfine wools, it appears to be about two inches, sometimes a little more, sometimes a little less. This must be understood to apply to the lock taken altogether, and not to the isolated and distended fibre; for in this latter respect, the fibre embraced in a lock two inches long, would extend from three to three and a half inches without being distended. This fibre, as we stated before, is as uniformly fine as possible in its whole length. It is supple and extensible in the highest degree, and possesses the qualities of *elasticity of curl*, and *elasticity of contraction*, qualities too easily recognized to require any directions.[¶]

It is evident that all the above observations and experiments must be made with the wool in its greasy state, as then its natural properties have suffered the least alterations. With the exception, however, of the test for ascertaining the *elasticity of volume*, (see Am. Farmer, page 105;) for then it is necessary to deprive the wool of all fatty substances.

So much for a description of the superfine wools. There will be found some, perhaps, that, although not offering all the above characteristic signs, or the qualities of which have been altered by various accidents,[*] or still more because there is no general rule without exceptions, may, nevertheless, deserve to be embraced in the first class; but the principle which we have laid down is not the less solidly established in our estimation; and we may, without hesitation, assert, that all wools uniting these characteristics must always be classed among the first sorts.

Second Class.

That assemblage of fibres which constitutes what we have said was a specimen of the *superfine* wool, is likewise strikingly observed in those which we have termed of *good fineness* (*belle finesse.*) However, in this latter sort, it will be found, that notwithstanding the care with which it may have been taken off of the fleece, the specimen is very seldom composed entirely of this assemblage of fibres, and a part of them it is observed have grown separately without uniting to the adjoining fibres. These assemblages, or locks, appear besides coarser, or at least flatter, and most of them it is perceived are composed of distinct filaments; whereas, in the superfine wools, all these appear frequently to constitute but one single mass, in consequence of the great uniformity of their undulations; they are also more liable to be united all the way up, presenting an assemblage of many fibres, large and flat, the undulations of which can be numbered by attending to the horizontal grooves which they leave upon their surface.

The specimen of the second class of merino wools offers some uniformity of sizes, at its basis and extremity; nevertheless, the small points by which they are individually terminated, are already larger, since they result from the assemblage of a greater number of fibres. Its variations in length are in about the same numerical proportions, as with wools of the first class. The number of undulations is from 24 to 27 per inch, they are as regular, but naturally greater than those of the superfine wools.

Third Class.

A similar assemblage of fibres continues still to be perceived in the wools of the third class; but they are few in number, and seem entirely to depend upon a superabundance of grease, which glues them together. However, independent of these assemblages, the growth of the wool is observed to be irregular; that is to say, the fibres, sometimes follow a parallel course, and sometimes cross each other. Hence, as they are all apt to attain an equal length, those that are bent do not arrive at the surface, and the fleece, instead of being square or cylindrical, as in the two first classes, is more or less pointed or bristly.

A characteristic feature, therefore, in the middling wools, is that they grow in locks that are more or less distinct, thicker or thinner at their base, but always more pointed at their extremities.

In this sort of wools already, the fibres are sensibly unequal, and an experienced eye sees at once the difference of fineness which is a consequence of this. Some, particularly those that have grown parallel, and that are embraced in the few existing assemblages, present undulations that are pretty regular in their whole length, there are of these from twenty-two to twenty-four per inch. Others shew only from sixteen to twenty of these undulations—the average we lay down is sixteen to twenty-three. These undulations or curls, that rise out of the bunches or assemblages, do not follow a direct course, and are not so regular, some are large and high, some small and low; in some parts of the fibres they do not reach the ends, or at least become wider and less frequent. Thence, the extremity is not so fine as the other portions of the fibre.

Finally, as regards the length of the wools of middling fineness, it is much more variable than that of the preceding, (we allude yet altogether to undulated wools,) for we find among this sort, locks that are two inches, and others that are from three to three and a half long; as to their real length, the fibre being less frizzled, it is scarcely more than from four to four and a half inches.

Fourth Class.

In this sort, the stem or lock is still more pointed than in the wools of middling fineness, in consequence of the greater confusion in the growth. Scarcely any assemblages or bundles are observed; the fibres of the lock are very unequally fine, either compared to each other, or in their different parts. The general appearance of the lock is that of the best common wools, or of a bunch of combed hemp. The greatest number of undulations which it exhibits is fifteen. Its length varies as with the middling wools. Here we close what we think proper to say about the classification of merino wools; we trust our readers will have followed up the detail of our observations, and we will feel happy if we shall have contributed to render the study and knowledge of wools easier and more certain. We do not think we could exaggerate the importance of this study. However, although we have the best reasons for believing in the accuracy of the principles which we have laid down, we must say that they may still be open to exceptions.

(To be continued.)

PROCEEDINGS OF AGRICULTURAL SOCIETIES.

The United Agricultural Society of South Carolina, held its stated annual meet in Columbia, on the 16th December last, when the following Societies appeared by their delegates, to wit:

The Agricultural Society of St. John's Colleton, represented by W. B. Seabro, J. Townsend, and J. W. Mathewes; the Agricultural Society of South Carolina, Charleston, by Jam Rose, James Ferguson, and Thomas Smith, jr.; the St. Helena island Society, by D. Scott, and Jos J. Pope; the St. Andrew's Agricultural Society, by Wm. Cattell and Winborn Lawton; the Pendleton Farmers' Society, by Col. F. K. Huger, and the Hon. David Sloane; the Beaufort District Society, by the Hon. William Pope; the Beaufort Agricultural Society, by Wm. Elliott, the Winyaw Farming Society, by the Hon. E. Flagg, and R. F. W. Allston; the Farmers' Society of Barowell, by the Hon. Ang Patterson.

An address, distinguished alike by great research and high patriotic feeling, was delivered to a large audience, in the hall of the House of Representatives. A communication was received from Mr. N. Herbemont, exhibiting the causes of failure in his wine crop, and pointing out the means to alleviate the agricultural distresses of the state, which, on motion, was ordered to be published in the "*Southern Agriculturist.*"

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[*] If the wool were plucked out instead of being cut, its character would be altered, and this alteration might give rise to false observations.

[†] We must take care not to confound for larger size bundles, those that are but the assemblage of smaller ones.

[‡] This uniformity in the undulations or curl, indicates a corresponding uniformity in the fineness of the whole length of the fibre. The fineness itself is, as we have said, in direct relationship with the *smallness* in *number*, and the *uniformity* of these undulations; that is, we repeat it, for wools that are decidedly undulated, but not for those which we excepted in the third section of our first chapter.

[§] We must not lose sight of what was stated as regards the formation of the stem, and not bestow upon it the vulgar acceptation which defines it a smaller or greater portion of wool plucked from the body of a sheep or taken from a heap.

[||] It must be remarked that these undulations are on two rows, one above, the other below, and that only one row is counted in the direction of the curl.

The number of these undulations, moreover, must be ascertained only after having taken all sorts of precautions to have the fibre precisely of the length which it naturally bears in the fleece.

[¶] The suppleness of the fibre may be estimated by comparing with it other fibres, which are held by each extremity between the thumb and index, but at a small distance from each other. They are then slightly blown upon, the finest fibre will experience a vibration, which will be more apparent than in the others.

In drawing out several fibres to test their comparative extensibility, it must not be forgotten that the results of this experiment are modified by different degrees of moisture, a difference which may even take place in consequence of the moisture of the fingers, or the length of time the experiment is being tried.

[*] These accidents may be pretty frequent. We have noticed them in the preceding chapter; unless attended to, we run the risk of passing a false judgment upon wool under examination, and a still more erroneous one as regards the animal which has yielded it. In such a manner that an animal, though full blooded, may be deemed inferior; 1st, if it be the wool of the first shearing which is subjected to experiment; 2dly, if the animal has been diseased in the course of the year; 3dly, if it has not been sufficiently fed, or too much fed; 4thly, if, during the year, its fleece has not been kept protected from the deleterious influence of moisture, the contact of injurious foreign substances, &c. &c.

The following officers were elected for the next two years: Col. Thomas Pinckney, of Pendleton, *President;* James Ferguson and Thomas Smith, jr. Esqs. *Vice Presidents;* Wm. Elliott, Esq. *Treasurer;* R. F. W. Allston, *Recording Secretary*; Joseph N. Whitner, Col, Cattel, Wm. H. Hay, James Ferguson, W. Elliott, Joseph J. Pope, Col. Benjamin Green, and J. W. Mathews, *Committee of Correspondence.* [*Southern Ag.*

At the anniversary of the "St. Andrew's Agricultural and Police Association," held on the 7th April, at the Club House, James island, the following gentlemen were elected officers of the Society for the ensuing year, viz: Winborn Lawton, *President;* John B. Girardeau, *Secretary and Treasurer;* T. H. S. Thayer, Wm. S. Godber, Wm. M. Parker, and John Wescote, *Standing Committee*; John Rivers, Joseph B. Hinson, and Joseph B. Rivers, *Agricultural Committee;* Joseph M. Maxcy, and J. J. Mikel, *Stewards.* Mr. Lawton was appointed to deliver the next address.

The Society was honoured with the company of the Hon. Whitemarsh B. Seabrook, who had been elected an honorary member, and been invited to participate in the celebration. A committee on behalf of the Society, met Mr. Seabrook, and addressed him, to which he made a suitable reply.

Several reports were read from the Agricultural and Police Committees. A silver cup, the premium for raising the finest cotton on the Island, was conferred on Joseph Bee Rivers, Esq. The anniversary address was then delivered by the Rev. Dr. Leland, with which the Society was highly edified and delighted. A committee was appointed to return their thanks, and request a copy for publication.

The "Agricultural Society of St. John's, Colleton," held its anniversary meeting at the Club House, on Edisto island, on Wednesday, the 8th ult. at which time the following gentlemen were elected officers for the ensuing year:

Joseph Edings, Sen'r. Esq. *President;* Edward Whaley, *Vice President;* John Townsend, Jr. Esq. *Corresponding Secretary;* Joseph E. Jenkins, Esq. *Recording Secretary;* Wm. Seabrook, Jr. *Treasurer;* Wm. Seabrook, Jr. Esq. Hon. W B. Seabrook, J. C. Mikell, Wm. M. Murray, and S Hannahan, *Committee on Premiums;* Hon. W. B. Seabrook, Joseph E. Jenkins, Esq. T. C. Mikell, J Hannahan, and E. Mikell, *Committee of Inspection* for the Northern Section; Capt. Wm. M. Murray, John Townsend, Jr. Esq. Cato A. Beckett, John Jenkins, E. M. Seabrook, Jr.—For the Southern Section.

HORTICULTURE.

GARDENING.

At one of the late meetings of the Paris Horticultural Society, a M. Fouquet presented some potato plants upon which had been grafted the stalks of the tomata (*solanum lycopersicum, L.*) The vegetation of these plants was very vigorous, and the potatoes are described to have been of excellent quality.

Interesting to Florists.

The carnation-fancier will be glad to hear of an effectual preventive against the fly, which has hitherto proved so injurious to this flower. Take some black pepper, ground very fine, and dredge it very lightly over the leaves and stalk whilst the dew is on the plant. [*English paper.*

A method of destroying the Red Spider in Hot houses, &c. By Mr. William Redding, Gardener to Mrs. Marryatt, Wimbledon House, Surry.

Sir,—Allow me to lay before my brother gardeners, my method of destroying the red spider in vineries, hot-houses, and peach houses; a method I have practised for these ten years with the greatest success. I take half a pound of flour of sulphur, kill it with a little milk, add half a peck of hot lime and two small balls of whiting, and mix it well with water, until it attains the thickness of whitewash, when it is fit for use. I then with a brush, wash the flues and every part of the house, which is of brick, with this mixture, in the month of February or March; but should they require a second washing, which is seldom the case, they may be done at any time, when the fires are on, with the greatest safety, only using it sparingly for 5 or 6 feet from the furnaces. [*Gardener's Magazine.*

RURAL ECONOMY.

CIDER MAKING.

[Our attention has been called to the subject of Cider making, by a respected correspondent; and as this is the appropriate season, we have taken the best Essay on the subject at command, for this week's number of the Farmer. We are able to suggest but very few improvements upon the directions here given. In the selection of apples, attention should be paid to assorting the several kinds, as well as to the state of ripeness. Where it can be done, each kind of apples should be used by itself. We have omitted the paragraph on the cider mill in the Essay, as it is defective, and recommend "*Farnham's grater cider mill,*" to be used. A full sized mill of this description, without the horse power or gearing, can be erected for less than eight dollars.

"The following certificate, similar to many others published, will show its superiority over all others now in use.

Woodbury, N. J. March 20, 1828.

We, the subscribers, having inspected Joel Farnham's patent grater cider-mill, are of opinion that it is decidedly to be preferred to the nut or roller mills heretofore in use. It will grind more apples with the same power, in the same space of time, than the ordinary mill, much finer and more uniform, the skin of the apple being completely grated fine, and the seeds left whole—consequently leaving no part of the apple from which the juice may not be expressed.

It is simple in its construction, and combines cheapness and durability, with the above advantage. For a small farm, a machine to be turned by two men, would answer the purpose. We therefore cheerfully recommend it to the patronage of the public.

J. H. Sloan,
Daniel Lake,
Daniel Baker,
Eleazer Mayhew,
Samuel C. Thackray,
James Dobbins,
Thomas Evans,
Joshua Barton.

The dimensions of a full-sized mill of the above description, with grater cylinder, for horse power, is 16 inches in diameter, and from 9 to 10½ inches long, which will grind from 90 to 120 bushels per hour."

We have made several attempts to get a description of the above mentioned mill, that we might publish a drawing of it, but in vain—owing, probably, to a fear on the part of the inventor of infringement of his right. Those who wish to obtain one, will doubtless be able to get all necessary information by applying directly to the inventor.]

(From Loudon's Encyclopedia of Agriculture.)

Cider is commonly manufactured by the grower of the fruit, though it would certainly be better for the public if it were made a distinct branch of business like brewing or distilling. "The true way to have excellent cider," Marshal observes, "is to dispose of the fruit to professional cider makers. The principal part of the prime cider, sold in London and elsewhere, is manufactured by professional men; by men who make a business of manufacturing and rectifying cider; even as distillers, rectifiers of spirit, and brewers, follow their businesses or professions; and like them too, conduct their operations, more or less, on scientific principles " (*Rev. of Agr. Rep.* vol. ii. p. 294.) It is allowed on all hands that the operation is most slovenly performed by the farmer, and that it is very difficult to procure this liquor in good quality. The operation of cider making is as simple as that of wine making or brewing, and will be perfectly understood from the following directions, chiefly drawn from the treatises of Crocker and Knight, that any person possessing an orchard, or a few hedge-row fruit trees, may make a supply for his own use. The first business is the gathering and preparation of the fruit; the second, grinding and pressing; and the last, fermenting and bottling.

In gathering cider apples, care should be taken that they be thoroughly ripe before they are taken from the tree; otherwise the cider will be of a rough harsh taste, in spite of all the endeavours of the operator. It is observed by Crocker, in his tract on *The art of making and managing cider*, that the most certain indications of the ripeness of apples, is the fragrance of their smell, and their spontaneously dropping from the trees. When they are in this state of maturity, in a dry day, the limbs may, he says, be slightly shaken, and partly disburdened of their golden store; thus taking such apples only as are ripe, and leaving the unripe longer on the trees, that they may also acquire a due degree of maturity. It may not, he thinks, be amiss to make three gatherings of the crop, keeping each by itself. The latter gathering, as well as wind-falls, can, however, only be employed in making inferior cider: the prime cider must be drawn from the former gatherings.

On the proper mixture of fruits, or rather on their proper separation, the merit of cider will always greatly depend. Those whose rinds and pulp are tinged with green or red, without any mixture of yellow, as that colour will disappear in the first stages of fermentation, should be carefully kept apart from such as are yellow, or yellow intermixed with red. The latter kinds, which should remain on the trees till ripe enough to fall without being much shaken, are alone capable of making fine cider. Each kind should be collected separately, as noticed above, and kept till it becomes perfectly mellow. For this purpose, in the common practice of the country, they are placed in heaps of ten inches or a foot thick, and exposed to the sun and air, and rain; not being ever covered, except in very severe frosts. The strength and flavour of the future liquor are increased by keeping the fruit under cover some time before it is ground; but unless a situation can be afforded it, in which it is exposed to a free current of air, and where it can be spread very thin, it is apt to contract an unpleasant smell, which will much affect the cider produced from it. Few farms are provided with proper buildings for this purpose on a large scale, and the improvement of the liquor will not nearly pay the expense of erecting them. It may reasonably be supposed, that much water is absorbed by the fruit in a rainy season; but the quantity of juice yielded by any given quantity of fruit will be found to diminish as it becomes more mellow, even in very wet weather, provided it be ground when thoroughly dry. The advantages, therefore, of covering the fruit will probably be much less than may at first sight be expected. No criterion appears to be known, by which the most proper point of maturity in the fruit can be ascertained with accuracy; but it improves as long as it continues to acquire a deeper shade of yellow. Each heap should be examined prior to its being ground, and any decayed or green fruit carefully taken away. The expense of this will be very small, and will be amply repaid by the excellence of the liquor, and the ease with which too great a degree of fermentation may be prevented.

In grinding the apples into pommage, several methods are practised; but the two most chiefly in use are by the bruising-stone with a circular trough, and the apple mill. In the trough, the apples are thrown in and bruised by the motion of the stone, as it is moved round by a horse, in the way that tanners grind bark. This is an ancient method, and still in use in some parts of Devonshire; and although it has its inconveniences in bruising some apples too much and some too little, it is not without its advocates in those parts of the country, the inhabitants of which allege that it bruises the kernels of the fruit better than other machines.

Whether the pommage should immediately after grinding be conveyed to the press, there to be formed into a kind of cake, or what is called the cheese; or whether it should remain some time in that state before pressing, ciderists have not agreed. Some say it should be pressed immediately after grinding; others conceive it best to suffer it to remain in the grinding-trough, or in vats employed for the purpose, for twenty-four hours, or even two days, that it may acquire not only a redness of colour, but also that it may form an extract with the rind and kernels. Both extremes are, Crocker thinks, wrong. There is an analogy, he says, between the making of cider from apples, and wine from grapes; and the method which the wine maker pursues ought to be followed by the cider maker. When the pulp of the grapes has lain some time in the vats, the vintager thrusts his hand into the pulp, and takes some from the middle of the mass; and when he perceives, by the smell, that the luscious sweetness is gone off, and that his nose is affected with a slight piquancy, he immediately carries it to the press, and by a light pressure expresses his prime juice. In like manner, should the ciderist determine the time when his pulp should be carried to the press. If he carry it immediately from the mill to the press, he might lose some small advantage which may be expected from the rind and kernels, and his liquor may be of lower colour than he might wish. If he suffer it to remain too long unpressed, he will find to his cost that the acetous fermentation will come on before the vinous is perfected, especially in the early part of the cider making season. He will generally find that his pulp is in a fit state for pressing in about twelve or sixteen hours. If he must of necessity keep it in that state longer, he will find a sensible heat therein, which will engender a premature fermentation; and he must not delay turning it over, thereby to expose the middle of the mass to the influence of the atmosphere. Knight's opinion is, however, that it should remain twenty-four hours before it is taken to the press.

The pommage being carried to the press, and a square cake or cheese made of it, by placing very clean sweet straw or reed between the various layers of pommage; or by putting the same into the hair-cloths, and placing them one on another. It is of importance that the straw or weed be sweet, and perfectly free from any fustiness, lest the cider be impregnated therewith. Particular care ought also to be taken to keep hair-cloths sweet, by frequent washing and drying, or the ill effects of their acidity will be communicated to the cider. To this cake or cheese, after standing awhile, a slight pressure is at first to be given, which must be gradually increased until all the must or juice is expressed; after which, this juice must be strained through a coarse hair-sieve, to keep back the gross feculencies of the juice, and be put into proper vessels. These vessels may be either open vats or close casks; but as in the time of a plentiful crop of apples, a number of open vats may by the ciderist be considered an incumbrance in his cider rooms, they should be generally carried immediately from the press to the cask. Thus far, says Crocker, cider-making is a mere manual operation, performed with very little skill in the operator; but here it is that the great art of making good cider commences; nature soon begins to work a wonderful change in this foul-looking, turbid, fulsome, and unwholesome fluid; and by the process of fermentation alone, converts it into a wholesome, vinous, salubrious, heart-cheering beverage.

Fermentation is an intestine motion of the parts of a fermentable body. This motion, in the present case, is always accompanied with an evident ebullition, the bubbles rising to the surface, and there forming a scum or soft and spongy crust, over the whole liquor. This crust is frequently raised and broken by the air as it disengages itself from the liquor, and forces its way through it. This effect continues whilst the fermentation is brisk, but at last gradually ceases. The liquor now appears tolerably clear to the eye, and has a piquant vinous sharpness upon the tongue. If in this state the least hissing noise be heard in the fermenting liquor, the room is too warm, and atmospheric air must be let in at the doors and at the windows. Now, continues Crocker, is the critical moment which the ciderist must not lose sight of; for, if he would have a strong, generous, and pleasant liquor, all further sensible fermentation must be stopped. This is best done by racking off the pure part into open vessels, which must be placed in a more cool situation for a day or two; after which it may again be barrelled, and placed in some moderately cool situation for the winter. The Herefordshire cider farmers, after the cider has perfected its vinous fermentation, place their casks of cider in open sheds throughout the winter; and, when the spring advances, give the last racking, and then cellar it. In racking, it is advisable that the stream from the racking-cock be small, and that the receiving-tub be but a small depth below the cock, lest, by exciting a violent motion of the parts of the liquor, another fermentation be brought up. The feculence of the cider may be strained through a filtering bag, and placed among the second-rate ciders; but by no means should it be returned to the prime cider. In this situation the cider will, in course of time, by a sort of insensible fermentation, not only drop the remainder of its gross lees, but will become transparent, highly vinous, and fragrant.

According to Knight, after the fermentation has ceased, and the liquor is become clear and bright, it should instantly be drawn off, and not suffered on any account again to mingle with its lees; for these possess much the same properties as yeast, and would inevitably bring on a second fermentation. The best criterion to judge of the proper moment to rack off will be, the brightness of the liquor; and this is always attended with external marks, which serve as guides to the cider maker. The discharge of fixed air, which always attends the progress of fermentation, has entirely ceased; and a thick crust, formed of fragments of the reduced pulp, raised by the buoyant air it contains, is collected on the surface. The clear liquor being drawn off into another cask, the lees are put into small bags, similar to those used for jellies: through these, whatever liquor the lees contain gradually filtrates, becoming perfectly bright; and it is then returned to that in the cask, in which it has the effect, in some measure, of preventing a second fermentation. It appears to have undergone a considerable change in the process of filtration. Its colour is remarkably deep, its taste harsh and flat, and it has a strong tendency to become acetous; probably by having given out fixed and absorbed vital air. Should it become acetous, which it will frequently do in forty-eight hours, it must not on any account be put into the cask. If the cider, after being racked off, remains bright and quiet, nothing more is to be done to it till the succeeding spring; but if a scum collects on the surface, it must immediately be racked off into another cask; as this would produce bad effects if suffered to sink. If a disposition to ferment with violence again appears, it will be necessary to rack off from one cask to another, as often as a hissing noise is heard. The strength of cider is much reduced by being frequently racked off; but this arises only from a larger portion of sugar remaining unchanged, which adds to the sweetness at the expense of the other quality. The juice of those fruits, which produce very strong ciders, often remain muddy during the whole winter, and much attention must frequently be paid to prevent an excess of fermentation.

The casks, into which the liquor is put whenever racked off, should always have been thoroughly scalded, and dried again; and each should want several gallons of being full, to expose a larger surface to the air.

The above precautions neglected by the ciderist, the inevitable consequence will be this: Another fermentation will quickly succeed, and convert the fine vinous liquor he was possessed of into a sort of vinegar; and all the art he is master of will never restore it to its former richness and purity. When the acetous fermentation has been suffered to come on, the following attempts may be made to prevent the ill effects of it from running to their full extent. A bottle of French brandy; half a gallon of spirit extracted from the lees of cider; or a pailful of old cider, poured into the hogshead soon after the acetous fermentation is begun: but no wonder if all these should fail, if the cider be still continued in a close warm cellar. To give effect to either, it is necessary that the liquor be as much exposed to a cooler air as conveniently may be, and that for a considerable length of time. By such means it is possible fermentation may, in a great measure, be repressed: and if a cask of prime cider cannot from thence be obtained, a cask of tolerable second-rate kind may. These remedies are innocent: but if the farmer or cider merchant attempt to cover the accident, occasioned by negligence or inattention, by applying any preparation of lead, let him reflect, that he is about to commit an absolute and unqualified murder on those whose lot it may be to drink his poisonous draught.

Stumming, which signifies the fuming a cask with burning sulphur, may sometimes be advantageous. It is thus performed: Take a strip of canvass cloth, about twelve inches long and two broad; let it be dipped into melted brimstone: when this match is dry, let it be lighted, and suspended from the bung of a cask (in which there are a few gallons of cider) until it be burnt out. The cask must remain stopped for an hour or more, and be then rolled to and fro, to incorporate the fumes of the match with the cider; after which it may be filled. If the stumming be designed only to suppress some slight, improper fermentation, the brimstone match is sufficient; but if it be required to give any additional flavour to the cider, some powdered ginger, cloves, or cinnamon, &c. may be strewed on the match when it is made. The burning these ingredients with the sulphur will convey somewhat of their fragrance to the whole cask of cider; but to do it to the best advantage, it must be performed as soon as the vinous fermentation is fully perfected.

Cider is generally in the best state to be put into the bottle at two years old, where it will soon become brisk and sparkling, and if it possesses much richness, it will remain with scarcely any sensible change during twenty or thirty years, or as long as the cork duly performs its office.

In making cider for the common use of the farm-house, few of the foregoing rules are attended to. The flavour of the liquor is here a secondary consideration with the farmer, whose first object must be to obtain a large quantity at a small expense. The apples are usually ground as soon as they become moderately ripe; and the juice is either racked off at once, as soon as it becomes bright, or more frequently conveyed from the press immediately to the cellar. A violent fermentation soon commences, and continues until nearly the whole of the saccharine part is decomposed. The casks are filled up and stopped early in the succeeding spring, and no further attention is either paid or required. The liquor thus prepared may be kept from two to five or six years in the cask, according to its strength. It is generally harsh and rough, but rarely acetous and in this state, it is usually supposed to be preferred by the farmers and peasantry. When it has become extremely thin and harsh by excess of fermentation, the addition of a small quantity of bruised wheat, or slices of toasted bread, or any farinaceous substance, will much diminish its disposition to become sour.

The produce of cider or perry to the acre, can only be guessed at, by first ascertaining the number of trees. From an orchard of trees, in full bearing half a hogshead of cider may, in seasons ordinarily favourable, be expected from the fruit of each tree. As the number of trees on the acre varies from ten to forty, the quantity of cider must vary in the same proportion, that is from five to twenty hogsheads. Pear trees, in equally good bearing, yield fully one third more liquor; therefore, although the liquor extracted from pears sells at a lower price than that produced from apples, yet the value by the acre, when the number of trees is the same, is nearly on a par.

BEES.

Mrs. Griffith of Charlieshope, N. J. who has acquired considerable fame by improvements in the management of bees, has presented the Massachusetts Horticultural Society with a hive constructed on her plan, and in a letter to Hon. H. A. S. Dearborn, President of said Society, published in the N. E. Farmer, gives the following as her mode of procedure.

You will perceive, on opening the box, that there is a frame for the hive too. In this frame the hive rests when moved to the swarming place, and the hive may always remain in it if it suit the owner as well; but I place my hives on joists, raised sufficiently high from the ground to allow me to look under the hive. In hiving with *my* hive, there will be a little difficulty *at first*, to those who have not examined it. You will observe that the top of the hive is *screwed* on. When the swarm is in the hive, which is put in after the usual manner, the hive must be set gently in the frame, and the top slid on *slowly*, that the bees which cluster on the edges may be pushed out of the way without being hurt. As soon as the top or cover is on, the screws, freshly *oiled*, can be put in again, tight. If the bees rise, and light again, they can be shook from the limb a second and a third time. A person with a blunt stick can then shove them into the little opening below.—They will all enter where a few lead the way. The great art in hiving bees is to do every thing *slowly* and *gently*. Almost every thing depends on this—People are generally in a great fright themselves, and they communicate their fears to the bees, who are thus irritated. Care must be taken to mark the cover, otherwise the holes for the screws will not correspond when the screws are to be put in again.

A writer in the Gardener's Magazine says, "Saltpetre is dear, but the effect upon hot sand, in a dry season, is astonishingly great: it doubles the crop."

INTERNAL IMPROVEMENT.

PENNSYLVANIA CANAL.

In the course of the last week, three feet of water was let into the Canal opposite Duncan's Island, and the work at the Red Hill and Hunter's Falls tested. At both places, it was perfectly water tight. A little more repairing will render the canal fit for navigation, from Duncan's Island to Harrisburg.—Between Harrisburg and Middletown some repairing is also to be done, but it is not expected that many days will be required to do it. The only heavy work is the raising of the dam at Duncan's Island, which is in competent hands. Altogether, we feel confident that this twenty-four miles of Canal will be navigable in September. Persons intimately acquainted with the state of the Juniata division of the canal, say it will be fit for navigation from Duncan's Island to Lewistown, in September, with the exception of the aqueduct at the mouth of Juniata, which cannot be completed this season.

[*Harrisburg Chron.*

IRON MANUFACTURE IN VENANGO COUNTY.

Extract from a letter received from a highly respectable gentleman at Franklin, Venango County.

"The quantity of pig metal manufactured in this county, in the year 1828, was about 1600 tons, of bloom 200 tons, of bar iron 100 tons. The pig metal, except what was used for making iron, was sold at Pittsburg, Steubenville, and Wheeling, at from 35 to $10 per ton; the blooms at Pittsburg, for $100 per ton, and the bar iron here, at 125 to $140 per ton.

"Several new furnaces are erecting; the demand is rapidly increasing. None of the furnaces were properly pushed last year, except one.

"With proper management, a furnace will make from 800 to 1000 tons per annum, which can be made at an expense of from 22 to 24 dollars per ton, according to the price of provisions; and with ore, timber, &c. convenient and good, at about 18 to 20 dollars. Under proper management and good materials, a furnace will clear, at present prices, *ten thousand dollars per annum.*"

Pittsburg, August 11.

THE CANAL.—The Packet Boat General Lacock, and the Pittsburg and Blairville Packet, passed through the river locks,—the former descending and the latter ascending, on the 9th. Yesterday the navigation of the canal may be said to have been formally commenced, though some parts of it have been in profitable use for a considerable time past.

A canal boat, ladened with 130 bushels of salt, arrived yesterday from the Kiskeminetas works.

Mr. Samuel Marshall, of this city, has obtained a patent for a new method of cutting leather, &c. to be made into boots, whereby those important articles of dress may be fitted to the human foot with the greatest precision.

LADIES' DEPARTMENT.

THOUGHTS UPON FEMALE EDUCATION.

The branches of literature most essential for a young lady in this country, appear to be:

1. A knowledge of the English language. She should not only read, but speak and spell it correctly; and to enable her to do this, she should be taught the English Grammar, and frequently be examined in applying its rules in common conversation.

2. Pleasure and interest conspire to make the writing of a fair and legible hand, a necessary branch of a lady's education—on this head, I have only to add, that the Italian and inverted hands, which are read with difficulty, are by no means accommodated to the active state of business in America, or to the simplicity of a republican.

3. Some knowledge of figures and book-keeping, is absolutely necessary to qualify a young lady for the duties which await her in this country. There are certain occupations, in which she may assist her husband with this knowledge, and should she survive him, and agreeably to the custom of our country, be the executrix of his will, she cannot fail of deriving immense advantage from it.

4. An acquaintance with geography, and some instruction in chronology, will enable a young lady to read history, biography and travels, with advantage, and thereby qualify her, not only for a general intercourse with the world, but to be an agreeable companion for a sensible man. To these branches of knowledge, may be added, in some instances, a general acquaintance with the first principles of astronomy, natural philosophy, and chemistry, particularly with such parts of them as are calculated to prevent superstition, by explaining the causes, or obviating the efforts of natural evil, and such as are capable of being applied to domestic or culinary purposes.

(*From the Albion.*)

The following effusions have not been before published. They are translated from a French annual.

LINES ADDRESSED TO LADY BLESSINGTON BY LORD BYRON.

You have asked for a verse—the request
In a rhyme 'twere strange to deny;
But my Hippocrene was but my breast,
And my feelings (its fountain) are dry.

Were I now as I was, I had sung
What Lawrence had pencilled so well;
But the strain would expire on the tongue,
And the theme is too soft for my shell.

I am ashes where once I was fire,
And the bard in my bosom is dead;
What I loved I now merely admire,
And my heart is as grey as my head.

My life is not dated by years;
There are moments which act as a plough,
And there is not a furrow appears
But is deep in my soul as my brow.

Let the young and the brilliant aspire
To sing while I gaze on in vain;
For sorrow has torn from my lyre,
The string which was worthy the strain.

ANSWER BY LADY BLESSINGTON.

When I asked for a verse, pray believe,
'Twas not vanity urged the desire;
For no more can my mirror deceive,
And no more can I poets inspire.

Time has touched with rude fingers my brow
And the roses have fled from my cheek;
Then it surely were folly, if now—
I the praise due to beauty should seek.

But as pilgrims who visit the shrine
Of some saint, bear a relic away,
I sought a memorial of thine,
As a treasure when distant I stray.

Oh! say not that the lyre is unstrung,
Whose cords can such rapture bestow,
Or that mute is that magical tongue
Whence music and poetry flow.

And though sorrow, ere yet youth has fled,
May have altered the lock's jetty hue,
The bays that encircle the head
Hide the ravager's marks from our view

SPORTING OLIO.

AMERICAN TURF REGISTER AND SPORTING MAGAZINE.

"There are intervals when the studious and the grave must suspend their inquiries, and descend from the regions of science; and to excel in those innocent amusements which require our activity, is often one of the best preservatives of health, and no inconsiderable guard against immoral relaxation."—*Rev. B. W. Daniel.*

The want of a repository in this country, like the English Sporting Magazine, to serve as an authentic record of the performances and pedigrees of the *bred* horse, will be admitted by all, whether breeders, owners, or amateurs of that admirable animal. The longer we remain without such a register, the more difficult will it be to trace the pedigrees of existing stock, and the more precarious will its value become. Is it not, in fact, within the knowledge of many readers, that animals known to have descended from ancestry of the highest and purest blood, have been confounded with the vulgar mass of their species, by the loss of an old newspaper or memorandum book, that contained their pedigrees? Sensible for years past of the danger which in this way threatens property of so much value, and persuaded that it is not yet too late to collect and save many precious materials that would soon be otherwise lost, the subscriber hopes to supply the long looked for *desideratum*, by the establishment of "The American Turf Register." But though an account of the performances on the American turf, and the pedigrees of thorough bred horses, will constitute the *basis* of the work, it is designed, also, as a Magazine of information on veterinary subjects generally; and of various rural sports, as Racing, Shooting, Hunting, Fishing, Trotting Matches, &c. together with original sketches of the *natural history and habits of American game of all kinds:* and hence the title, *The American Turf Register and Sporting Magazine.* It will of course be the aim of the Editor to give to his journal an original *American* cast, conveying at once, to readers of all ages, amusement and instruction, in regard to our own country, its animals, birds, fishes, &c. In the absence of domestic materials, the magazines received from abroad will supply an ample stock of appropriate matter.

Of the Rev. Dr. Parr, a man profoundly learned, and, what might be expected to follow, an exemplary minister, and a liberal christian, we are told that "it was a fixed opinion in his mind that, above all other means, social entertainments are the most effectual for promoting kind feelings and good will among men and neighbours." The physical capacity to cherish and rear our families, and the resolution to peril our lives in defence of political and religious freedom, is as certainly invigorated and heightened by occasional exhilaration of the mind and spirits, as the elasticity of the bow is maintained by frequent relaxation. Hence the wisdom and benevolence of the scriptural warrant, there is "a time to weep, and a time to laugh, a time to mourn, and a time to dance." The knowledge of mankind, so essential in every practical pursuit, nay the yet more essential knowledge of one's self, is not to be found alone in solitary labour nor in solitary meditation; neither is it in a state of isolation from society that the heart most quickly learns to answer to the calls of benevolence.—Sympathy springs from habits of association and a sense of mutual dependence on each other; and the true estimate of character, and friendly and generous dispositions, are under no circumstances more certainly acquired, nor more assuredly improved and quickened than by often meeting each other in the friendly contentions and rivalries that characterize field sports—whether it be in the intensely animated but short lived trials on the turf, or the no less exhilarating but more protracted ecstacies of the chase, or when we go to

> "——range the purple heath
> Or naked stubble; where from field to field
> The sounding coveys urge their labouring flight;
> Eager amid the rising cloud to pour
> The gun's unerring thunder."

In undertaking to get up the Sporting Magazine, the Editor confesses he is urged in some degree by the same sort of humble, and he hopes blameless, ambition that prompted him to commence the American Farmer, without a single subscriber. In this case, as in that, he sees the country without such a work; it is a new field which no one has attempted to occupy—but his reliance too, is now, as then, far less on himself than on gentlemen of talent and spirit, who may be willing to contribute the results of their experience, and the anecdotes and materials within their reach. In a word, on that readiness to aid in the accomplishment of liberal and useful purposes, which, in all countries, distinguishes the true sportsman. Moved by no sordid considerations, we would cheerfully resign the undertaking for the sake of its success, and the pleasure and benefit which such a work, if well executed, will confer on the community, if any one, of whom there are many, with better capacity and more adequate talents will undertake it—but from much observation we are fully persuaded that only one (*if one*) magazine on these subjects can be supported—rivalry, by dividing the materials, would only fritter away its spirit and impair its value, more especially as a Stud Book.

It is confidently anticipated that in the department of original sketches of natural history alone, the subscriber though not a sportsman, will be remunerated for his patronage. Each number will be embellished with a handsome engraving. Finally, as to the style and execution of the work, the first number may be received as a fair specimen; entitled to some allowance for the imperfections inseparable from the first essay in a new and somewhat complicted and difficult enterprise.

J. S. Skinner.

Conditions.

The Sporting Magazine will be published monthly. Each number will consist of about 50 pages, embellished with beautiful engravings—price $5 per annum, to be paid on the receipt of the first number.

☞ Where the number of subscribers at any place will warrant it, it will be sent by private conveyance at the expense of the Editor, and delivered free of any extra charge; where it is sent by mail the subscriber will have to pay the postage.

⁂ Persons procuring five subscribers, and sending the money, will receive a sixth copy gratis—and so in proportion for a larger number.

The first number of the Sporting Magazine is ready for delivery, containing:

- Plate of the Godolphin Arabian; engraved by Cone, of Philadelphia, painted by Stubbs.
- Introduction.
- Address to Sportsmen.
- Historical notice of the Godolphin Arabian.
- The Cub Mare.
- Washington a Sportsman—his costume—his hunter—his huntsman Billy—his hounds, and his habits as a spirited lover of the chase.
- Directions for castrating Colts by a simple and safe process.
- Wildair.
- Instructions for training Race horses.
- Colic and Gripes in Horses—how to distinguish, and how to treat them.
- Punch, imported horse, memoir of.
- Notice to owners of bred Stallions.
- Selim, great running by, at Philadelphia.
- Importation and obituary of imported Stallions.
- Horse, natural history of.
- Gun, flint and percussion, compared.
- Elliptical gun barrels.
- Wild fowl shooting extraordinary.
- Dogs, anecdotes of.
- Appeal to Sportsmen to keep and publish journals.
- Ticks in dogs, how to destroy.
- A genuine document.
- Toling ducks, history and practice of.
- Wolf hunting in Russia.
- Fox, the red, inquiries about.
- Mange or Itch in dogs, infallible remedy for.
- Angling, history of.
- Fisherman's Song.
- Trout fishing in Cumberland county, Penn.
- Piscatory anecdote.
- Pedestrianism.
- Richmond Barbacue (or Quoit) Club, history of.
- New time keeper recommended for timing horses.
- Re-animation of frozen Fish.
- Sporting Journal of N. S. J.
- Form of a Sporting Journal, recommended.
- Stallion Dogs.
- John Singleton.
- Technical Sporting terms—Shot.
- *Recipes*—To prevent hunting boots from taking in water—to cure sore feet in dogs—to cure scabby ears of dogs
- SPORTING INTELLIGENCE—Trotting Club at Baltimore—Races at Lancaster, Penn.; at the Union Course, L. I.; at the Gum Spring, Loudon county; at New Market; Broadrock; Tree Hill, Va.; Milton, N. C.; in Canada; at Ascot Heath, England; in France.—-American Trotters.—Prospect of Game.
- TURF REGISTER—Pedigrees.

RECIPES.

HOW TO BOIL RICE.

MR. SKINNER:

I now enclose you a statement of the mode of boiling Rice in Carolina. By giving it an insertion in your widely extended paper, you may perhaps conduce to the promotion of the interests of the Southern planter. Put your rice into an open pot, then cover the rice with water and put it on the fire to boil—suffer it to remain on the fire until the rice is soft, which you can ascertain by means of a wooden ladle, which we call a hominy stick; then take it off, and drain off the water, and put a cover on the pot, then place it on coals or hot ashes, and leave it to steam, or, as we call it, soak, for fifteen or twenty minutes. If the editor of the New England Farmer would copy this, it might do good, especially to southern people who migrate in summer season to spend in the north the profits of their labour and capital in the south.

A RICE PLANTER.

TO MAKE THE BEST GINGER BEER.

Take one ounce of powdered ginger, half an ounce of cream tartar, one large lemon cut in slices, two pounds of loaf-sugar, and one gallon of soft water, let them be well mixed together, let them simmer over the fire for half an hour, then put in one table spoonful of yeast, and let it stand to ferment, and when done, bottle it and tie the corks with twine, put it in a cool place, and it will be fit for use in five or six days. This is delicious in hot weather.

TO DESTROY COCKROACHES.

Procure from the herb woman, or apothecary, a moderate quantity of that odoriferous vegetable called *poke root:* boil it in water until the juices are extracted, and mingle the liquor with good West India molasses, or if the spirit of patriotism be extravagant, with molasses from New Orleans; spread the liquid in large platters or soup plates, in the kitchen, pantry, closet, or wash house, or whatever apartment may have been the subject of invasion, and the enemy will be found slain in heaps, lying by hundreds, and fifties, before the following morning. A gentleman, to whom we are indebted for this information, states that he slaughtered 575 cockroaches in a single night, by means of the *poke root* and *molasses,* and that the root which had been boiled being thrown into a closet, thickly invested by the enemy, the place was quitted entirely in a few days, great numbers being left dead upon the field.

[*Boston Gazette.*

CHEAP GLASS.

We hear frequently of the windows in houses being broken by hail and rain, I consider that it is owing to the glass being too thin which is so often used; when I formerly directed a man to set a square of glass, it was seldom I could have any but thin, but of late I have made a rule to always keep glass of the best, and of the thickest kind—and since I have adopted this plan, I do not have a quarter part of the glass broke which I formerly had. Let any man test the experiment once, and he will find that a thick square will last three times as long as common or thin glass. I consider it a heavy tax on the community to have so much ordinary glass used.

[*Boston Sentinel.*

THE FARMER.

BALTIMORE, FRIDAY, AUGUST 28, 1829.

☞ INDIAN CORN.—The growing crop of this grain is stated to be abundant in all parts of the country, that we have heard from, beyond what has been known for many years. It has been injured by too much rain on the lightest lands.

☞ It is observed by those who buy most largely, that a much less quantity of wheat has come to market, than had last year at this season—this is probably to be imputed to the higher prices which were last year obtained later in the season. Still, however, we should think it the best rule in general for the farmer to be *early* with his operations; to do every thing in its proper time and natural order. Against the *chance* of higher prices, he has to lose the interest on his money—pay interest on his debts—and to bear the ravages of the bird, the fowl, the wevil and the rat, as well *two* as four legged; and then an equal chance of a worse market.

☞ TOBACCO is doubly better than last year; merchants who bought then at the low prices have realized large sums—one as much as $7000 on less than sixty hogsheads of finest quality.

To W. MASON SMITH, Esq. *Charleston, S. C.*

Dear Sir,—I have had the honour to receive through you, the very handsome piece of Plate voted me by the Agricultural Society of South Carolina.

It will be preserved as a flattering evidence of that regard which too highly estimates my services in "the promotion of the agriculture of the United States." These services have been cheered and enlightened, and in truth owe their chief value to extensive correspondence with gentlemen in the South; where the planters of our most valuable products, have always been distinguished alike for their polite acquirements, and their liberality in the encouragement of useful enterprises. Coming from such a source, the compliment bestowed in this case will not fail to quicken the sense of gratitude which I have constantly had occasion to entertain towards the citizens of South Carolina, and to incite me to assist, in my humble way, to discover and improve other and more profitable sources of agricultural industry, as those indicated and most favoured by nature, have been, or may be, extinguished or paralised.

With great respect, sir,
Your obedient servant,
J. S. SKINNER.
Editor of the American Farmer.

BALTIMORE, *August* 27, 1829.

[☞ The specimen of Silk enclosed in the following letter is of a very good quality. When such silk is so easily produced, is it not astonishing that any family possessing ground enough to accommodate a mulberry tree, will continue to pay money for foreign sewing silk, to say nothing of other articles of this precious material?]

Rocky Mount, Va. August 16th, 1829.

J. S. SKINNER, Esq.

Sir—I send you a sample of Silk raised on the common mulberry of our country, with a request that you will give your opinion on the quality and texture of the same—the sample has been much handled and defaced, otherwise it would have a better appearance.

Farming is somewhat improving in this section of the country—the tobacco planters are compelled through necessity to improve their farms; having cut down all their best land in rearing this article. Corn crops are more abundant this season than has been known for years before; our wheat has been much injured by the dashing rains while in bloom.

LATEST FOREIGN NEWS.

By an arrival at Boston, intelligence has been received from England to the 24th July. There is nothing further from the war in the East, except rumours of a cessation of hostilities having taken place; which, however, seem to be without foundation. War was about being commenced by Austria against Morocco. Civil commotions had increased to an alarming extent in Ireland. The Dublin Evening Post of the 18th July, holds the following language, which is sufficiently indicative of the state of things in that unhappy country:—

"What a state is the country reduced to! In Tyrone, Armagh, and Fermanagh, the Catholics have been obliged to retire to the mountains for protection. The milch cows are suffered to run wild about the country, for the want of proper care—the children and their mothers have fled from their home. under the terror of assassination; and if vigorous measures be not speedily adopted, the civil war in the North may be extended to other quarters."

The Privy Council has terminated its deliberations, and the result is a proclamation, calling upon the authorities of the country to obey the laws, which will produce about as much effect as the invitation to *Master Barnerdine* to come down and be hanged. The Dublin Evening Post has hit the nail on the head—"Disarm the yeomanry and proclaim Martial Law." There is no use in shilly-shallying when multitudes are taking the field against each other. In all cases of this kind severity is mercy.—In a country where the magistrates are partizans, the law is a mockery. The only efficient discipline is martial law administered unsparingly and impartially, without regard to religion or party.

Liverpool, *July* 24.

The sales of the week are 9,500 bags: prices have declined this week so as to make the fall in the last fortnight 1-8d per lb; the import is 15,200 bags, viz: 7,800 American, 2,700 Brazil, 4,100 Egyptian, and 1000 Barbadoes.

Cotton.—Bowed, Georgia, per lb. 5 a 6 3-8d; N. Orleans, 4½ a 7 1-3d; West India, 5 a 6d; Barbadoes 5½ a 6d; Demerara, 5¾ a 7¼; Pernam, 6¾ a 7¼d; Maranham, 6 1 3 a 6¾; Bahia, 5 7-8 a 6½d; Sea Island, good and fine, 1s ½d a 1s 4d; do. ordinary and middling, 6 a 10d; Surat, 3 a 4½d; Bengal, 3½ a 4¼d.

Liverpool Corn Exchange—July 24.

Duty has been paid since our last on about 15000 barrels of flour, and there now remains but little of either in bond here, and it appears very probable that the duty on wheat will be increased to 16s 8d per quarter next week.

Wheat, English, white, (per 70lb.) new, 10s2 a 10s9; do. red 9s9 a 10s4; Irish, white, 9s2 a 9s6; do. red, 8s a 8s6; old 7s9 a 8s6. Foreign, duty paid, Dantzig, white and high mixed, old, 9s8 a 10s6; Rostock, Wismar, &c. 9s6 a 10s.

Indian Corn, white, (per 480lb.) old, 33s a 35s; yellow and red, 32s a 34s.

Rye, (per Imp. qr.) old, 33s a 36s.

Flour, English, (per 280lb.) new, 50s a 53s; Irish 50s a 51s.

London, July 20.—Tobacco—There are cargoes of tobacco offering, no sales yet reported, a parcel 50 hhds: Maryland reported, sold for Portugal.

Prices Current in Boston, August 21.

Apples, best, bbl. —— a ——. *Beans,* white, bushel .90 a 1.00. *Beef,* mess, bbl. 10.50 a 11.00; cargo No. 1, 9.50 a 10.00; No. 2, 8.00 a 8.50. *Butter,* inspected, No. 1, new, lb. .14 a .16. *Cheese,* new milk, .7 a .9; skimmed milk, 2. a .3. *Flour,* Baltimore Howard-st. 6.00 a 6.25; Genesee, 5.75 a 6 00: Rye, best, 3.50 a 3.75. *Grain,* Corn, bu. .60 a 62; Rye, [illegible] a .65; Barley .67; Oats .42 a .45. *Hogs'-Lard,* 1st sort, new lb. .9. *Pork,* clear, bbl. 17.50 a 18.00; Navy, mess, [illegible] a 13.50; Cargo, No. 1. 13.00 a 13.50. *Seeds,* Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel -----. *Wool,* Merino, full blood, washed, .32 a .45; do. do. unwashed, .18 a .22; do. three-fourths, washed, .28 a .32, do. half blood, .24 a .28; do. quarter, washed, .22 a .24; Native, washed .20 a .23; Pulled, Lambs', 1st sort, .34 a 36; do. 2d sort, .22 a .25; do. spinning, 1st sort, 27 a .30.

Prices Current in Philadelphia, August 24.

Bees-wax, yellow .22 a .23; *Beans,* bushel $1.00 a 1.25; *Beef,* mess 10.50 a 11, prime 9 a 9.50, cargo 7; *Butter,* No 1, .7½ a .8, No. 2, .5 a .6; *Cotton,* New Orleans .10 a .12, Upland 9. a .10, Tennessee 9. a .10, Alabama 9. a 10; *Feathers,* South. .34 a .35, West. .32 a .34; *Flax* .7½ a .8. *Flour,* sup. 5.25, fine, 4.62½ a 4.75; Rye 3.25 a 3.37½; Cornmeal, hds. 11.75 a 12 00, bls. 2.10 a 2.12½; *Flaxseed,* cask —— a ——; bu. ——; *Grain,* Wheat 1.00 a ——; Rye .60 a .65, Corn l. c. white, .44 a .46, l. c. yellow, .45 a .47, u. c. round, .51 a .52; Oats .25 a .27, Barley, Pa. .— a .—; do. East. .55 a .60; black-eyed Peas .40 a .50. *Hams,* Jersey .9 a .11, Virginia .8 a .9, Western .8 a .8½; *Hemp,* 200 a 210; *Lard,* .6 a .8; *Oil,* linseed, .67 a 68; *Pork,* mess, —— a 13.50, prime 11.50 a —, cargo 10.00 a 10.50; *Rice,* 2.50 a 2.87½; *Tobacco,* Kentucky .3½ a .6, Vir. .4½ a .7; *Wool,* common washed lb. .26 a .28, half blood 28. a .31, three quarters blood .31 a .32, full blood .34 a .38; unwashed, generally 10 cents less, according to quality.

JONATHAN S. EASTMAN,

Has now on hand and is constantly supplied (at his Agricultural, Horticultural, and Seed Establishment, No. 36, west Pratt street, Baltimore,) with WHEAT FANS of the most approved kinds, made of the best materials, and by good worknem; also, Cylindrical Straw Cutters, of which he is patentee, they are adapted to every kind of long forage, and surpassed by no other machine for the same purpose in any country. Likewise, a full assortment of Gideon Davis' highly improved Patent Ploughs,—the advertiser has recently made some improvement on the Shares of this Plough, which he trusts will be found an important advantage.

Also, Clezy's improved Scotch Plough, and improved Bar Share and Coulter Ploughs, of large size, Cultivators, Patent Corn Shellers, Dutch Cutting Boxes, Brown's Vertical Wool Spinner, Cast Steel Axes, superior Oil Stones, &c. &c.

Likewise, a general assortment of the Messrs. Landreths' Garden Seeds, warranted fresh and good, and at the same prices they are sold for at their store in Philadelphia. Orders will be received for Green House Plants and Bulbous Roots, from the Messrs. Landreth's splendid collection delivered here in good order, at the Philadelphia prices.

Also, Fruit and Ornamental Trees. On hand a good supply of Orchard Grass and Clover Seeds, both warranted of good quality.

P. S. Agents for the above, where gentlemen can leave their orders.

Messrs. Jona. Alden. Philadelphia.
Barr, Auchincloss, & Co. New York.
David J. Burr, Richmond, Va.
Randolph Webb, Raleigh, N. C.
J. C & C. Burckmyer, Charleston.
Dr. W. W. Anderson, Statesburg, S. C.
J. G Herbert, Savannah, Geo.
Stephen Duncan, Esq. Natchez, Miss.

CABBAGE SEED.

The undersigned hath received by the ship Alexander Barclay, from England, a supply of first rate Cabbage Seeds, which he now offers for sale. To those who in former years have bought seeds of him, he need only say these seeds are raised by the same gentleman who hath supplied him these last eleven years with such excellent seeds. To those unacquainted with them, he would observe that they are exceedingly well adapted to this climate for a spring crop; they produce large hard white heads, by the beginning of May, and are of a very fine flavour and the most handsome form. These seeds are raised by one of the first botanic gardeners in the neighbourhood of London, and are of exceedingly approved kinds and quality. In confirmation of the above, I will here subjoin a copy of a certificate that was given me five years since, for insertion in the American Farmer, by six of the most respectable gardeners of the Baltimore market, who still continue to purchase and sow these seeds.

Baltimore, July 14, 1824.

We, the undersigned, hereby certify that the cabbage seeds called Early George, Bullock's Heart, Early York, and Early Wellington, which are imported and sold by Samuel Ault, are of the very best quality; having made use of them ourselves for several years, we pronounce them early and genuine, likewise very hardy in standing the winter. As witness our hands,

JOHN MYCROFT,
THOMAS LEWIS,
EDMUND EVINS,
PETER HATMAN,
SAMUEL REGISTER,
VALENTINE LUTZ.

The price of the above seed is 37½ cents per ounce, or $4,00 per pound. The ounce will yield upwards of 2000 fine cabbages. The time to sow these seeds is from the 10th to the 25th of September. Printed directions respecting the proper soil, treatment and cultivation of these cabbages, will be given gratis with each parcel of seed. Orders, with remittance, from all parts of the United States, (*postage paid,*) will be promptly attended to, if directed to "Samuel Ault, No. 78, Bridge street, Baltimore." I have likewise Drum Head, Flat Dutch, Green Dutch Cabbage; Savoy, Early Harvest, and Early Screw cabbage seeds. Also, Cauliflower, Brocoli, and Radish seeds of all kinds, warranted first quality.

SAMUEL AULT.

ALMANAC.

1829. Aug—Sept.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 29	5	29	6	31	13	2	sets	
Sunday,........ 30	5	30	6	30	13	0	7	11
Monday,....... 31	5	31	6	29	12	58	7	41
Tuesday,...... 1	5	33	6	27	12	54	8	12
Wednesday,.. 2	5	34	6	26	12	52	8	43
Thursday,.... 3	5	35	6	25	12	50	9	18
Friday,......... 4	5	36	6	24	12	48	9	56

New Moon, 29th, 3 h. 48 m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Market.—The flour market continues without change, dull and heavy. The wagon price is, new, $5.12½. Wheat has experienced some improvement, and is tolerably brisk at our rates. Corn is dull. Live Stock.—Beef on the hoof continues dull, and a further decline of 25 cents has taken place.

Tobacco.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 5.00—red, 4.00 *a* 6.00—fine red, 7.00 *a* 8.00, for wrapping 5.00 *a* 10.00—Ohio, common, —— *a* ——.—good red —— *a* ——.—fine yellow —— *a* ——.—Rappahannock, 3.00 *a* 3.50—Kentucky, fine 4.00 *a* 5.00—wrapping, 4.50 *a* 7.00.

Flour—best white wheat family, $6.00 *a* 6.50*—superfine Howard-st. 5.25 *a* 5.37½; city mills,— *a* 5.00 Susquehanna, ——. **Corn Meal,** bbl. 2.37½—**Grain,** best red wheat, new 93. *a* .97;—best white do. new 1.05 *a* 1.10; ord. to good, .80 *a* .90—**Corn,** white, .38 *a* .39; yel. .38 *a* .40—**Rye,** —. *a* .45—**Oats,** .— *a* .23—**Beans,** 1.10 *a* 1.15—**Peas,** .60 *a* .65—**Clover seed,** 3.25 *a* 3.50—**Timothy,** 2 *a* 2.50—**Orchard Grass,** 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—**Barley,** .45 *a* .50—**Flaxseed,** .75—**Cotton,** Virg. .9½ *a* .10—Lou. .11 *a* .12—Alab. .9 *a* .10—Mississippi .10 *a* .12—North Carolina, .8 *a* .9—Geo. .9 *a* .10—**Whiskey,** hhds. 1st p. .21½—in bbls. .22 *a* 24½—**Wool,** common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—**Hemp,** Russia, ton, $210 *a* ——; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—**Fish,** Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, —— *a* 5.50—Herrings, No. 1, bbl. 3.75 *a* 4.00; No. 2, 3 50 *a* 3.75—Mackerel, No. 1, 6.50; No. 2, 6.00; No. 3, 4.50—**Bacon,** hams, Baltimore cured, .9 *a* .10; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .30—Plaster Paris, cargo price per ton, $3.50, ground, 1.25 bbl.—Prime Beef on the hoof, $4.50 *a* $5.00.

* Six dollars and fifty cents by the single barrel, for Ellicotts' Patapsco white wheat family flour.

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A new Treatise on Sheep and Wool, translated from the French by the editor, continued; chap. 2. Of the different sorts of Wool, and the manner of ascertaining their qualities—Proceedings of the United Agricultural Society of South Carolina; of the St. Andrew's Agricultural and Police Association; and of the Agricultural Society of St. John's, Colleton—Gardening—Carnations—A method of destroying the Red Spider in Hot Houses—Essay on Cider Making, from London's Encyclopedia of Agriculture—On the management of Bees—Saltpetre—Pennsylvania Canal—Iron Manufacture in Venango County—New mode of cutting Leather for Boots—Thoughts upon Female Education—*Poetry,* Lines addressed by Lord Byron to Lady Blessington, with her answer—American Turf Register and Sporting Magazine—Recipes; How to boil Rice; to make Ginger Beer; to destroy Cockroaches; Cheap Glass—Editorial; Crops of Indian Corn; Wheat; Tobacco; Letter to W. Mason Smith, Esq.; Silk Culture—Latest Foreign News—Prices in the Boston, Philadelphia and Baltimore Markets—Almanac for the week.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

COMPLETE TREATISE ON HORSES:

Teaching how to judge them; to rear and manage them; how to improve their breed; to prevent or to cure the maladies and accidents to which they are liable; and to derive from them the most value under all circumstances. Useful to Breeders and Farmers, engaged in the rearing of these interesting animals; to Officers of Cavalry or Inspectors of Recruits; to Keepers of Livery Stables, Sportsmen, or Veterinary Surgeons; to stage Proprietors, Travellers, Farriers, Horse Jockeys, Amateurs of the Horse, &c. &c.

By an Old Officer of the French Cavalry.

(*Translated from the French for the American Farmer.*)

(Continued from p. 178.)

CHAPTER XII.

Of the Ration proper to be given.

Having examined the aliments, both solid and liquid, that agree best with the horse, we will speak of the manner in which his ration should be given, so as to preserve him in the most healthful state, and enable him to render the services expected of him.

Generation produces the animal, and nutrition preserves him: nutrition has not only for its functions the reparation of the losses which the animal incessantly sustains during life, but serves also, during a certain time, to his growth.

There are in nature two grand classes of animals: the one herbiverous, and the other carniverous. The latter destined to be nourished only by flesh, living by rapine, have received from nature organs analogous to their manner of life: they can bear hunger a long time; the stomach is found contracted, and the intestinal tube short; nourished besides by substances of a higher degree of animalization; these must be better fitted to repair the depredations.

Herbiverous animals, on the contrary, have generally several stomachs, the intestinal tube very long and of great diameter. In consequence of this organization the horse can with difficulty sustai hunger long, and has occasion to eat often. It s observed that his stomach is of small diamet , and digestion with him is rather intestinal th stomachical. His stomach soon empty, makes h often feel hunger; and if it be not satisfied, it di nishes in size, as is observed in horses that die inanition. It is not the same with the cow, w can die of hunger with a great quantity of food her stomach.

Herbiverous animals should suffer ss from abstinence, as nature has given them e means of living in all seasons of the year, as re is vegetation every where and at all times. carniverous, on the contrary, living only on ey, are often obliged to live a considerable tim ithout eating.

It is essential to regulate the f of the Horse.

The manner of nourishing horse is necessarily important for his preserva , particularly as a great quantity of food as well too little is equally injurious, and produces in h nearly the same diseases. There is no state re contrary to the health of the horse than o ty (extreme fatness.) He should be kept in a m m state avoiding each extreme. It may even b id that he is by nature rather lean than fat. east it is thus that the most famous horses we w appear—the Arabian, the English, and the nish horse, have all the muscles apparent on xterior, and are little burdened with flesh. It emark as singular as true, that horses too fat ubject to the same diseases as those too lean— the two extremes meet: the scabs, the farcy, a e glanders, attack more particularly those th e fat; besides the least exercise fatigues the ey become short-winded, and are exposed to inflammatory diseases, such as the founders, la courbature, "*la groisse fondue*," &c.

Causes of Leanness.

Leanness in horses comes from the poorness and depravity of the juices. Hence results "*psorick*" diseases, such as the scab, the farcy, water in the legs, &c.

It is necessary to remark, that animals that fall off rapidly have also the property of thriving with the same facility; and it is astonishing to see a horse that appeared a perfect Rosinante put in the best order, in the space of a month, by the happy effects of a proper regimen.

The allowance to be given the horse should be proportioned to his size and the kind of exercise he undergoes. Regard should be had to the temperament, the climate, and to the particular state of the animal.

The thing most abused in the food of horses is hay—it is desirable that much less should be used. There are many horses that would be well nourished by straw and oats. Hay is good food, but should be given in small quantities, and mixed with straw. Ten pounds of hay, twelve or fifteen pounds of straw and half a bushel of oats, should suffice for a common horse, particularly if he does not work: the ration can be augmented until he is relieved from hard work, because the food should be in proportion to the wear and tear.

The allowance should be divided into several parts with an interval of several hours between giving each. The digestion should be complete before he is fed again; for when other food is received before that first in the stomach is digested, oppression folows, an ill digestion which almost always requires the horse to be purged.

Intervals between Feeding.

The habit of regulating the hour of feeding is a good one, but should not be followed rigorously, because circumstances may make it necessary to depart from it when the horse will suffer inconvenience. Horses should drink twice a day in winter and three times in summer. There is commonly left too great an interval in winter by watering in the morning and at 12 o'clock; for then there is a space of about 18 hours from the afternoon to the next morning. It is better to water in the morning and evening, which would make nearly an equal interval. If water is given in the stable from wells, a few handsful of bran should be thrown in, and the whole stirred to saturate it with the atmospheric air. If in winter, it should be allowed to grow colder, but in summer, it were better to let it stand all night. If there be a brook or river near the stable, it were better to lead the horse to it—the water is much better from its contact with the air and the solar rays.

Besides, horses are fond of bathing in summer: the fluids are then altered and water promotes the secretions; and though the instinct of this animal is much changed in the state of servitude to which he is condemned, he does not feel less the want of bathing.

A rule which ought not to be forgotten, is not to feed a horse immediately before exercise or work. It is necessary there should be an interval of half an hour between his meal and his labour, because if digestion is not made he is sluggish, heavy and ill disposed.

When he arrives he should not be fed immediately even if hungry; for then the stomach is deprived of its strength which is communicated to the exterior, and it is necessary to wait till it be in a state to react and recall its vigour by the operation of digestion.

Except when it is indispensable to fill the stomach, as we have before said, bran should not be used as food for horses, or employed except in the manner we have prescribed. Substances which contain some nutritious parts are necessary, and besides those of weight which the stomach requires to act on. Without these two principles, the animal will fall off and not regain what he loses—consequently he will lose strength, and his legs unable to sustain his weight, must yield. Such are the inconveniences that result from using bran Hay from artificial meadows should not be used, except with the restrictions we have mentioned. The custom of watering before feeding with oats has been always adopted in consequence of its good effects; it moderates the too strong action of that aliment, which by its nature is *very heating.*

CHAPTER XIII.

Of Venomous Substances

After having spoken of substances which from their nature agree best with the horse for food, we will examine those which are injurious to the animal economy.

In a state of nature the horse knows how to choose the plants which are necessary, as well for his nourishment as his preservation, but when submitted to the caprices of man this instinct is considerably weakened. It is then essential to search for means to repair the deviations from nature incident to this state of being—to prevent them it is necessary to know the different substances which act as poisons.

Of Poisons, their Symptoms and Effects—Remedies to be used.

By poisons it is understood the substances which injure the animal economy, and which taken internally, or applied to the body, produce a change which tends to deterioration, or even to destruction.

They are divided into three classes—chemical, mechanical, and narcotic.

The last act without leaving the least trace of injury on the organs, and thus alone they appear to merit the name of poisons.

Chemical poisons are those which act as caustics, and which applied or introduced in the intestines, operate upon the part, with which they come in contact, a real decomposition by the force of affinity.

Mechanical poisons act in the same manner, tearing the parts—for instance, pounded glass, or arsenic, which, introduced into the stomach, lacerates it so that inflammation supervenes, and afterwards gangrene.

Horses are exposed to caustic poisons from eating plants which partake of these properties. These plants act as purgatives—they are the *spurge,* the *crow foot,* the *lead wort,* the large wild horse-radish, the *briony,* the *foxglove,* the coloquintides, (*bitter apple,*) the *water hyssop,* the *wild nard.*

All these plants are caustic, and are produced principally on moist land. When they are eaten by horses, they produce violent colics and even death. When mixed in small quantities with other grass, no inconvenience results from them; but when in large quantities they become injurious.

Horses that graze in woods and eat the buds of trees, such as the poplar, the fir, are liable to have bloody urines. It sometimes happens that horses in grazing, swallow insects which have properties eminently caustic—for example, cantharides—Their effects on the animal economy is shown in the ordinary way—bloody urines that are injurious and painful.

The proper remedies for this disease are emollients—the marsh mallow, sweet oil, and mucilagenous glisters.

There are also poisons, in the mineral kingdom, which may be introduced into the body of the animal by water—these are particles of copper. When water runs through beds of this metal, and horses are watered with it, it occasions colics, dysenteries, and even consumption. Water containing lead in solution has the same effects—it occasions violent colics called painters' colics, or dry gripes. In such cases mucilagenous remedies are best.

Narcotics, that may be considered as the only true poisons, act, it appears, on the principle of life itself. On opening the dead body of an animal which has been thus poisoned, no kind of organic injury is seen. The most violent poisons are of the family of night-shade. These plants have generally a sombre aspect as the henbane, the morelle, the night-shade, tobacco, poppy, &c.

Of all these plants, the most eminently dangerous for the horse, is the yew. This is a terrible poison. The greatest attention should be paid to horses which graze near woods where this plant is so common.

When a horse has taken a considerable quantity of a strong narcotic he cannot sleep, but is extremely drowsy, he leans his head on his manger and appears, in a manner, glued to it.

From the berries of the henbane and the night-shade, the symptoms which precede death are very different. There is an excessive dilation of the paralyzed popil of the optic nerve, a general spasm in all the muscles of the thigh and of all the members.

The remedies to employ in these circumstances are, in general, tonics as well as acids. Narcotics act differently—there are animals on which they operate more powerfully than on others.

A very dangerous poison, is the bite of mad animals. Spontaneous madness is to be distinguished from that which is communicated. Horses are not subject to the first. To be tainted with hydrophobic virus it is not necessary that an animal be bitten by a mad dog, or any other animal; it is only necessary that his skin come in contact with the saliva of an animal who is attacked by it. Animals have been known to go mad from only sleeping on the place where the saliva of a mad animal had been spread. After this, it appears that it is by means of the absorbent pores of the skin, that the virus is introduced into the blood.

It has long been believed, that even the air of a place, where an animal attacked by hydrophobia is confined, can communicate the malady; but it has been shown by experiments, that there is no real danger to be apprehended from it.

Madness communicated has no fixed term for its development among all animals; though it shows itself at the end of eight days in the horse, while in man it requires forty days.

As soon as an animal is bitten by a mad dog care should be taken to cauterize the wound. The best caustic which can be used in such a case is the spirits of ammonia. It appears, from many experiments, that applied to a recent wound this remedy produces the happiest results.

Plants, which are spoilt either by mud or by rust, are more general and consequently more pernicious than all poisons. If the most ancient accounts of *Epizootia* be consulted, it will be found, that they have always prevailed in years, when damaged hay has been saved, and straw tainted by rust. It is then to this cause that such great ravages should be attributed. Plants eaten in this state by animals, carry in the stomach a principle of potridity which is not long in becoming fatal to them.

If it be found necessary to receive forage of this kind, it should be mixed with straw and beaten, to divest it of dust and insects which it is commonly found to contain—it should be besides, moistened with salt and water, or what is better simply sprinkled with salt. Acids ought to be administered to the horses to combat any bad effects which might still ensue.

Oats which have been too long exposed to the dews produce often fatal effects. A regiment of cavalry has been known to lose a great part of its horses from an *epizootic* malady, occasioned by damaged oats. It is the same with rusted straw, which is infected with a black dust, much resembling iron filings.

CHAPTER XIV.

Secretion—Cutaneous System.

Independently of the principles which we have developed in the preceding chapters, there are other important cases indispensable to preserve a horse in good condition. There are, in the secretions, many *residua* which cannot be identified with the organs of the animals. Wise and foreseeing nature causes them to evacuate by different means; the most powerful of all is the cutaneous system. It is by this that transpiration is made. There is not a being in nature which does not experience the effect of this principle; it is common to the three kingdoms of nature; the difference only exists in the manner and proportions.

The principle of excretion is so salutary, that it has been remarked in medicine, that a man who perspires well is never sick. There exists a marked sympathy between the cutaneous organ and the urinary passages.

It is known that animals perspire much more in summer than in winter, and urinate less; while the contrary takes place in winter, when the urines are more abundant, and the perspiration almost insensible.

In order that the body may enjoy a good perspiration, a certain fluidity of the blood is necessary, and that the movements of the heart and arteries be perfectly free. It is also necessary, that the air should have a certain solvent property; because the air if too humid, in place of serving as a vehicle to this evaporation, injures the health essentially; for being surcharged and saturated by aqueous vapors, it cannot receive it; in place of being solvent it gives on the contrary more humidity to the body by means of the absorbent vessels, which commonly occasions diseases. It is then necessary that the air, whether hot or cold, be dry.

Advantages of rubbing, to promote perspiration.

It is for this reason that rubbing cannot be too much recommended for the horse. It opens the pores of the skin, and detaches the scales, which accumulate on the body. There exists a certain sympathy between the stomach and the cutaneous organs, so that digestion is singularly promoted by rubbing.

In a state of nature, the horse may do without these cares; because he constantly takes moderate exercise, he rolls, and scratches himself, and bathes whenever he finds water. Besides being constantly in the air he receives much less dust than if he were stabled.

We remark, without fear of being contradicted, that the most ordinary cause of sickness in horses comes very often from want of rubbing, for this negligence occasions the repercussion of humours which cannot remain without danger. Hence the tetanus (lock jaw,) the peripneumony (pleurisy,) dysenteries, chronick diseases, the scab, the tetters, &c. &c.

Rubbing facilitates the oscillatory movements; and consequently, the circulation of the lymphatick vessels is better made, and tone and elasticity is given to the absorbent vessels. In all eruptive diseases, horses should be rubbed hard. We should not neglect to administer inwardly substances which aid nature, and favour the crisis. In these cases sudorificks combined with cordials, are very efficacious. It is an excellent method to rub the bit of the bridle with garlick while rubbing the horse. It is a very good masticatory, and gives the animal a good digestion. (To be continued.)

From a pamphlet of the Essex Massachusetts Agricultural Society.

FOR IMPROVING OUR NATIVE BREED OF CATTLE.

To the person who shall produce at the public exhibition of the Society, in either of the years 1829, 1830, 1831, 1832, 1833, or 1834,—any number of milch cows, not less than four, of our native breeds, showing manifest improvement therein, by an important increase in the *quantity*, and maintaining, at least, if not improving, the *good quality* of milk; the latter to be tested by the quantities of butter made in the five months next preceding the exhibition—

For the best, - - -	thirty dollars.
For the next best, - -	twenty-five dollars.
For the third, - - -	twenty dollars.

To the person who shall produce as aforesaid, the best pair of working oxen, or well grown and well trained steers, raised in the county, and improved on the principles hereinafter mentioned,

	twenty dollars.
For the second best, - -	fifteen dollars.
For the third, - - - -	ten dollars.

To the person who shall produce as aforesaid, the best bull of our native breed, raised in the county, and improved on the same principles,

	twenty dollars.
For the second best, - -	fifteen dollars.
For the third, - - - -	ten dollars.

Remarks on improving our native breed of neat cattle, by Col. Pickering.

The first most celebrated breeder of live stock, in England, was the late Robert Bakewell; to whom, Mr. Arthur Young says, that country is indebted for *just principles of breeding*. And a later eminent breeder says, that "before Mr. Bakewell's days, we had no criterion but size; nothing would please but elephants and giants." And he declares "that Bakewell enabled those who followed his ideas to produce two pounds of mutton, where only one was produced before." The following were the points to which Bakewell specially attended;—"fine forms, small bones, and a true disposition to make ready fat: which indeed is inseparable from small bones, or rather fine bones and fine forms, or true symmetry of the parts."

But Bakewell's prime object, in improving cattle and sheep, was to render his animals most profitable in beef and *mutton*. And he succeeded in obtaining forms indicating *strength of constitution—a disposition to fatten*, and *at an early age—weightiness in the most valuable parts—with lightness of offals*. If there was a deficiency in any point, he would cross his animals with one that was amply supplied in that part; and if any point of his animal was too heavy, by an opposite cross he would reduce the superfluity. By such management, diligently pursued, he at length gave to his stock the shape and qualities he desired.

So far as we breed domestic animals in this country—and this observation will apply to our whole state, and generally to all New England, we must extend our views beyond *beef* and *mutton;* and with the former combine *milk, butter* and *cheese*, and a fitness for *labor;* and together with *mutton*, aim at the greatest quantity of the *most useful wool*.

If Bakewell could alter the shape of his cattle, and lay flesh and fat on the most valuable joints—as was the fact—can it be doubted that, by similar attention, the quantity and quality of the milk of our cows may be increased and enriched? But to obtain this improvement, calves should be raised from such cows only as excel in these two particulars.

It seems to be the best opinion, that of the different breeds of live stock, those of the largest size are not the most profitable. The breed of cattle, however, should be such as produce oxen, a single pair of which, at their full growth, should have strength sufficient, on proper tillage land, with well formed ploughs, to open a furrow to the depth of five, or even of six inches. As to the form of the different kinds of live stock, an eminent naturalist and farmer in England has thus expressed his opinion:—"The more deep and capacious the chest, and the shorter and lower an animal is, relative to its weight, the better adapted it will be to live and fatten on little food, the more labor it will go through; and I have always found the most short legged oxen to be the best laborers."

The foregoing rules of breeding, and description of good live stock, being the result of the experience of eminent English farmers and breeders, merit the particular attention of all who shall attempt to improve upon our present races of domestic animals; and are here introduced to furnish them with useful information. And in the hope and expectation that such improvements will be undertaken, the foregoing premiums are offered.

It will readily be admitted that our live stock demand great improvements; and no one will question whether such improvements are practicable. They ought then to be attempted. It will avail little to bestow premiums merely for the best that shall be produced; for such premiums might be given for a century, without effecting any real improvements; and thus, as to live stock, defeat the object for which the society was formed. The known excellency of some oxen and cows, of our native breed, give assurance to judicious and enterprising farmers, that their numbers may be multiplied by observing the well-tried rules of breeding.

The best bulls and cows do not always produce a progeny equal to the parents; but experience has shown, that from such only the highest improvements may be expected. The same observation applies to all other kinds of live stock.

Farmers who shall effect great improvements in live stock, while they render a lasting benefit to their country, will lay a foundation for advancing their own interest, in the demand, and consequently increased prices, of their improved breeds.

Reflecting farmers, who shall become candidates for premiums, will be aware, that if their exertions should not obtain the honor of a prize, they will not pass unrewarded; as all the improvements they make, will either give them immediate profits or add to the value of their farms. The direct object of premiums is not to excite merely trials of skill, but to add to the solid interests of farming; and he, who shall show how we may add most to that solid interest, will obtain the highest prize.

(From the Agricultural Reader.)

SIGNS OF A POOR FARMER.

He grazes his mowing land late in the fall, and his pastures early in the spring, and consequently ruins both. Some of his cows are much past their prime. He neglects to keep the dung, and the ground from the sill of his buildings and it costs him twenty dollars to make repairs, when one dollar's worth of work would have been sufficient, if performed at a leisure time, ten years before. He sows and plants his land until it is exhausted, before he thinks of manuring. He has generally too much stock, and many of them unruly.

He is sure to have a good deal of stakes and pole fence. He says he cannot farm it for the want of money; this is frequently the case with good farmers: but you may know a sloven by his *inattention to little things*—his children's shoes are spoiled for the want of a little tallow to supple them—his door hinge comes off for want of a nail, and the door is destroyed for want of a hinge; and his mow is trampled on and gorged for want of a door, and all this loss is occasioned by not timely driving and clenching a single nail.

Nothing is in order—he has a place for nothing, and nothing is in its place. If he wants a gimlet, or a chisel, or a hammer, he hunts up chamber, out at the barn, in the cupboard, and lastly, when he has spent more time in pursuit than it takes to do the job, he finds it down the cellar. He keeps no stock of the smallest things—if a button or bail to a pail gives way, or a key to a yoke, or a pin to a sled, or an axe, a string or swingle to a flail, or even a tooth to a rake, he has none to replace them. He seldom does any thing in stormy weather, or in an evening, and is sure to keep no memorandum of little jobs that are to be done.

You will perhaps hear of his groaning about hard times, frequently in the bar-room. Death and the tax-gatherer he knows must come; yet he makes no provision for either of them. Although he has been on a piece of good land for twenty years, ask him for a grafted apple, and he will tell you that he could not raise them, for he never had good luck.—His indolence and carelessness subject him to many accidents—he loses soap and cider for want of a hoop—in the midst of his ploughing his plough breaks because it was not housed—and when he is reaping away from home, his hogs break into his garden for want of an additional board.

He does not take advantage of his business by driving it when he can, and consequently he is like the old woman's son, "so *busy that he never does any thing*"—or at least he seldom finishes any thing before he begins another, and therefore brings little to pass, and is often to be seen in a great hurry. He is seldom neat in his person, and will sit down to the table himself without combing his hair, and suffer his children to do so without washing their hands and faces. He frequently drives his cattle with a club, and is generally late at public worship—his children are apt to be late at school, and their books are torn and dirty—he is careless: his children are so too.

As he has no enterprise; so he has no money; and frequently makes great sacrifices to get it; and he is slack in his payments, and buys altogether on credit; he pays through the nose for every thing. He wants forethought, economy and exertion. In fine, a poor farmer, in the strict sense of the word, is a poor creature—he is a poor husband and a poor citizen. A good farmer may be poor, but a poor farmer cannot act his part well; in other words, he cannot be good as a man or as a christian.

(From the Lynchburg Virginian.)

PRIMING AND TOPPING TOBACCO.

I have abandoned the custom of priming tobacco, having found by experience that it is a loss and damage to the crop. However high tobacco may be primed, when growing on strong land, the bottom leaves will come to the earth and be damaged; but if it be not primed, the same leaves will stand sufficiently elevated to make fine tobacco; moreover, I have sometimes cut tobacco which was not primed close to the ground, and every leaf sound.

Topping is the first very particular business in handling a crop of tobacco, and will be more so if not primed; but, by practice, one may soon learn where the buds should be taken out without calculation. I commenced this practice some years past on my latter tobacco, and would recommend the same to other planters, that they may without risk get acquainted with the work, and be satisfied as to its utility.

Great loss is annually sustained by injudicious priming and topping tobacco. Some planters top low on rich lot land, which is not only loss in weight, by the plant being cramped in its nature, but the tobacco will be coarse. Others prime and top high on ordinary and new land, which is also loss in weight by the unreasonable priming, and the tobacco will lack oil life.

Tobacco, on loose land, or land well broke, of vigorous growth and deep green colour, should be topped to as many as twelve to fourteen leaves above the usual place of priming; but that of a pale colour or puny growth, should be topped low.

No one should be put to topping tobacco, unless he can be made sensible of the difference in different kinds of tobacco—between old and new land—land well broke, and badly broke, and early and late topping.

Z. Drummond.

August 8th, 1829.

HOGS.

"They are usually fattened with Indian corn, given whole in the cob, which is far from an economical mode of appropriating that grain, but the difficulty and expense of shelling and cracking it, is the great bar to its being ground. Putting the cobs into a barrel several days before giving them to the pigs, will, in a great measure, answer all the purposes of grinding, as the grain thus becomes soft, and is easier masticated and digested. It is a common saying among the Scotch house-wives, that for every pound of salt you give a fatting pig, you have in return a pound of pork; and the hering salt is bought up in Scotland for this very purpose."

HORTICULTURE.

(From the New England Farmer.)

FRUIT TREES.

As the season is now approaching when much may be effectually done for Fruit Trees, to render them healthy and productive, I am induced to offer for the consideration of the farming interest, the following remarks, resulting from experience.

To preserve the peach tree, and render it productive, I have, for years, pursued the following course with great success, and am induced to believe the peach tree can be made healthy for many years, if constantly attended to.

In the fall remove the earth around the roots of the tree, and carefully cleanse from all vermin; lay the roots well bare, and previous to replacing the earth, put around each tree from 10 to 14 pounds of tobacco stems, pound them with a mall well down, mixing with the earth, until the space is again filled around the tree: this should be firmly done, with care not to bruise the bark of the root. In the spring, when pruning, take care to keep down the shooting branches; in order to prevent the tree from growing high, cut from the extremity of every branch: the effect will be to give strength and constitution to the stock, and more nourishment to the bearing branches. The great object is to prevent an exuberant growth of the tree; for it is to the exuberance of growth that the early decay of the tree in our climate may be attributed; the excess of growth is great for a few years, and soon produces disease and decay by exhaustion. The course I propose will prevent the early decay of the tree. I feel a confidence from the fact, that a friend of mine now has peach trees, in a healthy and vigorous state, twenty-seven years old, with every appearance of continuing for a great length of time. The course here recommended, has been pursued by him for many years, and always with success.

The pear tree at this season also requires much attention. Open around the roots and cleanse them thoroughly—if any rough bark appears, remove it, and to each tree put around the roots from three to four bushels of house ashes; over this throw the earth lightly—the frosts of winter will not injure the tree—when the spring opens genially warm, scrape the outer bark of the body of the tree well down, removing freely the outer bark, leaving a thin covering only to the wood. Immediately on this being done, apply to the surface of the body the following wash:—take of soft domestic soap one part, of water two parts; boil them to a strong ley, and when as hot as it can be made, with a swab go over the part previously scraped thoroughly. Great care should be taken in pruning. Remove the decaying wood, carefully cutting into a healthy part; the wound should be covered from the weather by a preparation, when the healing process will immediately commence. Each year select a few suckers for bearing fruit, and when they attain a healthy appearance, remove the extremity of the branch and, in this manner keep down an extensive growth of the tree. This must be done with care, as from the course first proposed there will be a great flow of sap, and if the trees is topped down too much, will produce decay. If this course is pursued, it will be found that the pear tree will be restored to health; the bark on the oldest trees will become fresh, tender, and allow a freer circulation of the juices which are required to secure it from decay, and secure an abundant and delicious production of fruit. The principal cause of decay in the pear tree of our country is from the bark becoming so firm and close, as to prevent a circulation of juices freely, and hence the blight of fruit, premature decay of the foliage, and final destruction of the tree.

Cultivator.

(From the New York Farmer.)

GRAFTING.

The new method is thus described in a letter from David Powel, Esq. inserted in the London Horticultural Transactions, vol. v. I shall only introduce the essential directions.

"Grafting wax properly prepared, when in a melted state, is spread evenly on sheets of moderately thin brown paper, which when cold is cut into strips about three-quarters of an inch wide. When one of these strips is to be used, warm it with the breath, and bind it round the stock and scion, pressing it gently with the hand, when it will be found to adhere so closely as totally to exclude both air and moisture. No further care is necessary, though it may be as well to look over the grafts occasionally, pressing the paper close with the hand where it may have before been occasionally missed." This plan of applying wax cements instead of clay, struck me at once, as not only exceedingly simple, but admirable for its neatness.

I accordingly treated 100 grafts in this mode. I procured some coarse, but strong and flexible brown paper, made of tarred cordage, and having prepared the grafting wax by the recipe subjoined, I spread it with great facility, by a common table knife, over the paper evenly. It cools instantly. I then cut it into strips of about an inch wide. In a warm sun, it requires no heating—but in a cool day, the breath will warm it sufficiently. As soon as the graft is inserted and tied with matting, or twine, the strip is wound round from the bottom of the cleft, to the insertion, and sawed end, and doubled over that. The operation requires *five seconds only*, and the air is most effectually excluded.

I put in grafts with clay, and with this *new* method, and the success of the last was *much greater* than with the clay. Six weeks have now elapsed, and the covering is perfect. Neither rains, nor sun affect it. There is one other great benefit. The paper is made stronger by the grafting wax, and may be unwound, and taken off without injuring the bark. I have applied it to greenhouse plants—to the Camellia. Here permit me to add, for the benefit of florists, that the Camellia, heretofore *grafted only* by approach, is found to succeed equally well, if grafted in the *manner of approach grafting*, the scion cut off, and the end left long enough below to insert it into the neck of a phial of water, or into a turnip, or potato. The grafting composition recommended in England, and which I used, was 1 lb: of pitch; 1 lb. of rosin; ¼ lb. of bees wax; ¼ lb. of hogs's lard, ½ lb. of turpentine. I hold, however, *very cheap*, all these *specific nostrums;* great variations may be made in them, taking care to see, that the compound is neither too stiff to use, nor too soft to melt, under the solar heat. I have been very tedious, but could not well abbreviate my remarks.

J. Lowell.

LARGE RADISH.

Mr. Skinner: *Aug. 24th*, 1829.

It may not be uninteresting to your readers to know of the uncommon growth of a vegetable which is considered one of the delicacies of the season.

Mr. Edward Summers, a respectable farmer, near Rockhill, in Fauquier County, Va. pulled from his garden yesterday, a radish 18 inches in length, 15 inches in circumference, and weighing six pounds. This radish grew in a heavy sandy soil, without any extra preparation, and which has produced during the season many more but little less in dimensions; and it may be remarked that it had not gone to seed, nor was it at all pithy, but a firm mild radish.

One of Your Readers.

RURAL ECONOMY.

MILK AND MILKING.

The practice of milking thrice a day, especially when cows are in good pasture, is recommended; each milking will give almost as much as if only done twice, for, when the udder is full, the milk begins to be absorbed into the body of the animal. The practice will be found not only to increase the quantity of manure, but of milk.

Milk should be poured into pans as soon as possible, and if carried far, or too much shaken, never gives abundant or good cream.

In order to find the richness of the milk of your different cows, pour the first of your milking of each into glass tumblers, and when the cream has risen you can easily see which bears the thickest coat. Winter's milk, although less abundant, will be found to be richer than summer's.

Milk gradually increases in richness from the first drop to the last. Take a tumbler full of the first, and another full of the last; you will find that the first yields not one tenth part as much cream as the last; and the quality is as great as that of its quantity. They who by careless milking leave half a pint, in reality lose not only as much cream as the first five pints afford, but also all that part of the cream which gives richness and flavour to the butter, and dry up the cow into the bargain.

A milk pan should not be above three inches deep. [*N. E. Farmer.*

Curious Fact in the Economy of Bees.

M. de Jonas de Gelieu, pastor of the churches of Colombier and Auvernier, in the principality of Neufchatel, Switzerland, in a work translated into English, under the title of the Bee Preserver, or Practical directions for Preserving and Renewing Hives, affirms a very important and singular fact with regard to the economy of bees. It is, that "when two or three distinct hives are united in autumn, they are found to consume together scarcely more honey during the winter than each of them would have consumed singly if left separate." In proof of this remarkable result, the author states a variety of experiments to which he had recourse, and all of which led uniformly to the same conclusion. And, indeed, he shows positively, by a reference to upwards of thirty hives, six of which had their population thus doubled, that the latter do not consume more provisions during the winter than a single hive does, and that, so far are the bees from suffering from this, the double hives generally send forth the earliest and best swarms. The translator, says the Quarterly Journal of Agriculture, who is a lady of great accomplishments, and habits of correct observation, has practised in Scotland most of the plans recommended in the original work, with the same results as the author.

LADIES' DEPARTMENT.

I have not seen the following *pretty thing* in your *Ladies' Department*. Perhaps it will please some of them, "uncertain, coy and hard to please," as they are.

ONE HOUR WITH THEE.

By Mrs. Cornwell Baron Wilson.

One hour with thee! when summer's sunset closes,
  And day's last blushes gild the quiet grove;
One hour with thee!—to watch the shutting roses,
  And whisper in thine ear soft tales of love!
All the fond heart has treasured through the day,
At evening's dewy close, for faithful lips to say.

One hour with thee! when day's dull toils are over,
  And wearied nature courts the peaceful scene;
One hour with thee!—when gentle spirits hover
  Around our guarded path—unheard, unseen;
Then all the vexing cares of busy day,
One hour with thee at eve can well repay!

One hour with thee!—when infant eyes are sleeping,
  The dove like sleep, that only childhood knows;
One hour with thee!—when eve's pale star is keeping
  Her lonely watch, till heaven with radiance glows;
Like that true star, *thou* art the gilding ray,
That cheers my path, and lights me on my way.

One hour with thee!—outweighs the empty splendor,
  The heartless joys for which so many live:
For one such hour, how gladly I surrender,
  All fashion's crowds, and fashion's pomps can give,
Sick of life's gaudy scenes, I steal away,
To share thy converse at the close of day.

ADVICE TO MOTHERS.

The following letter from the late Lord Collingwood to Mrs. Hall, contains some valuable advice to mothers:—

I had great pleasure, writes his lordship, in the receipt of your very kind letter a few days since, and give you joy, my dear Maria, on the increase of your family.—You have now three boys, and I hope they will live to make you happy when you are an old woman. I am truly sensible of the kind regard which you have shown to me in giving my name to your infant: he will bring me to your remembrance often; and then you will think of a friend who loves you and all your family, very much. With a kind and affectionate husband, and the three small children, all boys, you are happy, and I hope will ever be so. But three boys!—let me tell you, the chance is very much against you unless you are for ever on your guard. The temper and disposition of most people are formed before they are seven years old; and the common cause of bad ones is the great indulgence and mistaken fondness which the affection of a parent finds it difficult to veil, though the happiness of the child depends upon it. Your measures must be systematic; whenever they do wrong never omit to reprove them firmly, but with gentleness. Always speak to them in a style and language rather superior to their years. Proper words are as easily learnt as improper ones, and when they do well—when they deserve commendation bestow it lavishly.

Let the feelings of your heart flow from your eyes, and tongue; and they will never forget the effect which their good behaviour has upon their mother, and this at an earlier time of life than is generally thought. I am very much interested in their prosperity, and that they may become good and virtuous men. I am glad that you think my daughters are well behaved girls. I took much pains with them the little time that I was at home. I endeavoured to give them a contempt for the nonsense and frivolity of fashion, and to establish in its stead a conduct founded on reason. They could admire thunder and any other of God's stupendous works, and walk through a church yard at midnight, without apprehension of meeting any thing worse than themselves. I brought them up not to make griefs of trifles, nor suffer any but what were inevitable.

SPORTING OLIO.

Inquiry for Blowing Hounds—Construction of Kennels, &c.

J. S. Skinner, Esq. *Morven, N. C. May* 9, 1829.

Sir,—I would be much obliged to you to inform me where the best *Blowing* Fox Hounds within your knowledge are to be found. By blowers, I mean such as cry in a long, full, mellow note; and I use the term in contradistinction to choppers or yelpers. I am very desirous to procure a first-rate blower or two, to cross on an excellent breed of fox hounds now in my possession; and thinking it probable that very fine hounds of that description may be found in Baltimore or its neighbourhood, I would thank you, if such is the fact, and as I have no acquaintance in that place, to name to me a suitable person, whose judgment might be relied upon to make a good selection, and whose services might be obtained for a satisfactory pecuniary compensation, to procure and ship to me, a couple of such dogs, I would immediately write to him and forward such sum as may be thought necessary to effect my object,—as to the requisite amount of which I would be glad to have your opinion. If I have not already completely tired out your patience, I would like to know whether the most admired hounds in your neighbourhood, are choppers or blowers; presuming that all the packs in that quarter are composed in part of blowers and part choppers.

I should like to see in the Farmer, if you should think it a suitable subject for your sporting olio, a detailed account of the most approved construction of a kennel for hounds, and their management therein; which will, of course, include a particular description of the couples used, and the means employed to prevent the respective couples of dogs from crossing and tangling their coupling chains together, and thereby occasioning fighting, or at least placing them in an uncomfortable situation—points on which I want information.

Yours respectfully, H. W. Harrington.

[Note.—Hounds have of late years been bred for speed, until they have scarcely any tongue left. It is only on a cold trail that we now sometimes meet with an old long eared dog to lift up his head and pour forth a loud note, deep and long, and more musical than any thing "on the earth beneath." Flying as our hounds now do to break the heart of their game in the first 30 minutes, they have scarcely time to yelp, much less to blow in loud and full cry. We should be glad to exchange a hound for such as is wanted by our correspondent, for the pleasure of sending him one. What we see in the English books on the construction of kennels, and management of hounds, is on a plan too expensive to be suited to this country. We should be glad to be favoured with a communication adapted to the circumstances of our own country, and a pack of from five to ten couple of hounds.]

Raising of Colts.

The following answers were returned by William R. Johnson, Esq. to questions propounded by John Marshall, Esq. of Fauquier county, Virginia.

Senate Chamber, Feb. 4, 1829.

1. Keep the colts in pretty good order, not too fat, until they are two years old, then break them "gently."

2. Keep them in lots, it does not matter as to size, taking care not to allow them to see other horses more than possible.

3 and 4. Grass lots are best, and short grass.

5. Dry food mostly—when young, cut oats.

6. Give corn in the winter; oats in the summer; not more at a time than they eat clean. When they are once fat very light feeding is best.

7. It is not at all necessary to rub them until they are two years old.

8. Wean the colts at about six months old.

Should the above answers to your questions not be sufficiently explicit, they will be with great pleasure added to. Respectfully,

John Marshall, Esq. Wm. R. Johnson.

Frederick County (Md.) Races.

First Annual Races of the Frederick County Association for the improvement of the breed of Horses.

At a meeting of this association, it was resolved, that the first annual races of the association should take place near Frederick town, on Wednesday, the 30th September, 1829, to carry weight, &c. agreeably to the rules of this association, for the following purses:

First day—Two mile heats, free for three and four year old horses raised and owned in Frederick county, for $80.

Second day—Three mile heats, free for any horse raised in Maryland, and owned in Frederick county, for $100.

Third day—Four mile heats, free for any horse owned north of the Potomac, for $150.

Nimrod Owings, *Chairman.*

John L. Harding, *Sec'ry.*

P. S. Tight booths, and gambling, will not be permitted on the ground.

Milton (N. C.) Jockey Club Races,

Will commence on Tuesday 22d September next.

First day—A colt race, 1 mile heats—entrance 25 dollars.

Second day—Proprietor's Purse, for $150, 2 mile heats.

Third day—Jockey Club Purse, for $350, subject to the usual discount—3 mile heats.

Fourth day—A Handy Cap for $100—three best in five—mile heats, the entrance to be determined on the evening preceding the day of the race. Money hung up each day.

The track will be put in good order. Stables and litter will be furnished to *race horses gratis.*

Thomas Mitchell,
Milton, N. C. August 21, 1829. Proprietor.

Inquiry Answered.

A writer under the signature of C. in a late number of the Farmer, inquired for the pedigree of a horse that stood in Virginia, and called Flag. His name was properly "Flag of Truce," but generally went by the name (by way of contraction,) of Flag. For his pedigree, character, and performances on the turf, C. is referred to the 9th vol. A. Farmer, page 406, and also vol. 10.

Author of "Annals of the Turf."

MISCELLANEOUS.

DR. POTTER ON MALARIA.

[The following letter from Dr. Potter, in answer to one addressed to him by Matthew Brown, Esq of Frederick county, on the probable influence of canals, compared with that of rail roads, and on the salubrity of their respective vicinities, offers a number of interesting facts relative to the operation of malaria, which we think necessary to lay before our readers, as subjects of much interest to the farmer.]

Baltimore, May 26, 1829.

Dear Sir—The object of your inquiry is peculiarly interesting at this crisis of public opinion, which seems recently to have been awakened to the importance of *Internal Improvement.*

Canalling, on any magnified scale, is a new art in our country, and involves a variety of considerations, and among others, the question, How it may affect the health of those who are destined to dwell near such extensive excavations?

This question can only be determined by a reference to the laws of epidemic, so far as they are known to originate in malaria or marsh effluvia.—Those laws are well ascertained, not from a chemical or analytical knowledge of the essential principle—but from experience and faithful observation of their effects:—and we may venture to assert that rules may be established by which (as far as that cause can operate,) we may calculate, with sufficient accuracy, the quantity and quality of disease, in any given space and locality.

A new canal, and improving for transportation a natural water course, are distinct considerations. The first may create a nuisance in a warm climate, but not necessarily. Its exemption from disease must depend upon its depth, and the mode of construction. It is of no importance what scheme may be adopted, provided it be calculated to diminish or destroy the growth of vegetables, or place them beyond the reach of putrefaction. It is clear that all canals must affect the atmosphere of their neighbourhood, and modify the diseases as far as the sphere of any noxious miasma emanating from them can extend. One change of wind may increase and another diminish the quantity of malaria—another may destroy or limit its diffusion; or it may dilate it by creating a stronger current of air, or by changing its direction.

Our experience on this subject may be arranged under the following heads, and such inferences as naturally flow from them:

1st. Heat, moisture and vegetable matter are the *three* things essential to the generation of malaria, or that principle which acts as the *remote* cause of *Intermittent and Remittent Fevers*, and all their numerous modifications.

2. In all places where these three agents combine, and the mercury rises to 75° of Farenheit's Thermometer, and continues to that degree any considerable time, this class of diseases is the necessary result.

3. The warmer the climate, the sooner the poisonous principle will be evolved; and it will be more concentrated in the same ratio

4 The more quiet the source of the gaseous emanation, the more active will be the effluvium, although a nearer approach to it will be necessary to become infected.

5. It follows from this fact, that calm seasons, or any continuance of calm weather, is likely to be followed by more malignant fevers than can be occasioned by the same atmosphere agitated by strong wind, and diffused to a greater distance:—Indeed the most inquinated atmosphere may be so diluted and diffused, as to dissipate the strongest poisons, and renders it entirely innocent.

6. The deeper the water the less must be the putrefaction. The surface is more heated than the

bottom of ponds, creeks, docks or ravines; and in them there can be no decomposition of vegetables, except when they are eradicated from their beds, and deposited on the shore; or from such materials as fall from the trees and shrubs on their borders. The heat acts principally on such as lie on or near the surface.

7. Covering such places with deep bodies of water, acts in another way in counteracting putrefaction: many vegetables which constitute the most prolific causes of putrefaction, are killed by an inundation of water. Those will only vegetate and grow while they are exposed to the rays of the sun; but are often cherished and invigorated by the alternate or combined action of water and heat.

8. By damming a river, creek, or other shallow water, the stumps and roots of trees and shrubs and some grasses may be removed, and the condition of the place may thus not only be improved, but rendered perfectly healthful. Some modern mill-ponds, by this precaution, are made to assume the appearance, and do possess, all the characteristics of a lake, which is only a pond upon a larger scale.

9. Deep water, under the frequent commotion of the winds, does not so well admit of the process of putrefaction, which cannot go on without rest. Its waters are constantly changing, and every particle is every minute exposed to the air of the atmosphere. The constant motion of the waves casts on shore the vegetables removed from the bottom, and it is always good economy either to convert them into manure, by incorporating them with the soil, or to burn them.

10. The great and most important fact connected with this subject, arises from the decomposition of vegetables in the shallowest water, and on this account, every master of a family ought to guard against such an occurrence. When the water is evaporated to the very dregs and is mixed with vegetables in warm weather, the cause is immediately put into operation and in the most deleterious form, and must continue to affect the circumambient air until all the water shall have been evaporated. This position is exemplified every year in some situations, especially in dry seasons, in ponds, the heads of creeks, branches, and all others temporarily covered with water in summer and autumn. From these facts, if we could anticipate the quantity of rain and the degrees of heat, we might calculate the quantity of disease with nearly the same accuracy we foretell an eclipse or the changes of the moon.

11. Lands deeply or frequently overflowed, are not so likely to originate miasmatic diseases. Marshes subject to a flood-tide daily, are often inoffensive, while meadows which are merely moist, but longer so, are more likely to engender fevers.

12. Waters between high hills are (cœteris paribus) more likely to become the sources of fevers than low level shores, but little elevated above the water, because they are less accessible to the winds; the strong currents in some deep rivers, constitute an exception to this rule.

13. Stagnant waters thickly surrounded by trees, infect only at a short distance, but the poison is, for this very reason, more concentrated. This conclusion flows from premises already laid down, but is counteracted in some measure by the gaseous product of putrefaction having been absorbed by the leaves of the trees. A small copse of woods between a stagnant pool and a dwelling, mitigates the force or destroys the effects of miasmatic exhalation.

14. Malaria is more dangerous at night, because it is more concentrated, from the absence of heat; and because it is usually not agitated by winds, and therefore acts longer on the living system.

15. From this fact it follows as a corollary, that persons may be exposed during the day with impunity, and still will be infected by sleeping in the same spot only a single night. This is partly to be attributed to the increased susceptibility of the body during sleep.

Damp warm weather is more likely to promote the operation of malaria than a dry atmosphere.—The vapour arising from low grounds, becomes the vehicle of the poison, and infects at a much greater distance than under a higher temperature, which would disengage it from its combination with vapour. We perceive from this fact how it is that night air is not injurious where there are no vegetables to putrefy, except from its temperature. In cities, where there is no grass, there is scarcely any dew; hence; there is no risk from exposure at night. We perceive from this principle the rationale of a fact frequently observed, that houses built upon hills, near low grounds, are liable to have their tenants infected by fevers. The cause is wafted almost undiluted, combined with a thick fog, and is arrested there until it is disengaged by a meridian sun, and thus set at liberty to be dissipated through the regions of space.

If by deepening the bed of the Monocacy, you propose to make it navigable to facilitate portage, you cannot deteriorate the surrounding atmosphere. It must of necessity be much more salubrious from two causes: first, by destroying many vegetables which grow only in shallow water. Second, by causing a more frequent motion of the water. This last cause operates also by destroying the process of vegetation.

Should any interrogatory occur to you, that may appear to affect the main question directly or indirectly, it will at any time be promptly answered by,

Dear sir, yours very respectfully,
To Mathew Brown, Esq. Nathl. Potter.
Frederick County, Md.

P. S. Vegetables emit the *vis nocens*, only during the putrefactive process: when they are completely decomposed, their elements are set at liberty, and soon become inert. From these principles we account for many of the phenomena always to be observed in summer and autumn, till frost shall have suspended the pestiferous process. Very dry summers throughout, in elevated or level places, are the most healthful; but a heavy rain succeeding to long dry weather, causes sudden and great sickness.

A season rainy throughout, can occasion but few miasmatic fevers, but a drought after a deep rain produces much disease, though the cause is slower in its operation, because some time is required for heat to kill the vegetables, before they can putrefy.

Diseases are often charged to some special location, when they are contracted elsewhere. The cause sometimes lies dormant in the system, for a long time, and the symptoms are evolved under the operation of some other cause, that tends to impair the vitality of the body.

Many diseases are ascribed to *malaria*, which are derived from other causes; such as *choleras*, some *dysenteries*, several states of *diseased liver*, with summer inflammatory, and *low fevers.*

If every master of a family, in town, country, or on ship-board, will apply these principles to his own domicil, and examine the premises minutely, he will discover the cause of every member of the miasmatic family of diseases, from the slightest ephemeris to the most malignant fever. Few are aware how small, and unsuspected a source may emit the most pestiferous effluvium, especially when it has been long imprisoned, and is suddenly discharged highly concentrated, as it often is.

N. P.

Winans' Rail Road Car has been tested in England, and furnished the most satisfactory results as to its superiority over every other species of wagon for rail road transportation. He has secured a patent from the British government, and there is little doubt but that he will reap great pecuniary benefit from his highly ingenious invention.

(From the Hagerstown Herald, edited by a Physician.)

DYSPEPSIA.

This term, which has become incorporated into every day's conversation, is the malady of *indigestion*, and might also be appropriately called the *vice of indolence.* When nature is curtailed of her fair proportion of exercise, fresh air and sound aliment; when she is loaded with superfluous meats and drinks—or where she is stinted in muscular action, or doomed to languish under oppressive sleep,—debility and obstruction seize on the vitals, and dyspepsia comes among the first in the train of disorders to prey upon the human system. What is the remedy? Return to nature—abjure all aliments which are not fitting in a child—taste the fresh air of heaven in long walks and regular exercise—give to slumber about six out of the twenty-four hours—abjure all quackery, your soot tea, your icy solutions, your blue pills, your anti-acids, your roborants and stomachics. In the use of wholesome exercise on foot or on horse, more may be accomplished than from all other remedies together. It is to be used generally, till *sweating* is induced—not perspiration, but till briny drops stand on the forehead. Exercise propels the blood through the small vessels of the system, and gives to the skin that kind of *action* which sustains the equilibrium of vital power: the lungs inspire more air in a given time, when excited by muscular motion, than when the body is at rest; and the blood is thus enabled to part with its excreted, and receive its vivifying principles.

"To cure the mind's wrong bias, spleen—
Some recommend the Bowling green;
Some hilly walks—all exercise;
Fling but a stone—the giant dies."

We confidently recommend the following prescription to dyspeptics, as the best we know for their disease.

Take a walk from five till six in the morning.

Make your breakfast on a cup of black tea, and a tumbler of milk with crackers.

Take a walk from ten till twelve before dinner.

Take your dinner of boiled mutton, or beef, without butter or gravy, with any simple vegetable; a tumbler of milk, with a cherry pie, will do for a desert—*be moderate.*

Beware of sleep after dinner—dose a little on an arm chair.

Take exercise two hours after dinner, freely; very freely; and let your supper be the most moderate repast taken during the day. If you are hungry during the interval between meals, eat crackers or stale bread—drink nothing stronger than mead, or spruce beer—*beware of the ardent.*

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We believe it to be in vain to prescribe a *particular diet*—the invalid must consult his own experience—what agrees best with some dyspeptic people is poison to others; with some we know bread, salt meat, and bacon, agrees better than any thing else. Milk, recommended above, is flatulent and bilious, and all kinds of vegetables hurtful. Let the invalid take *moderately* of the food that experience teaches him will remain most quietly on the stomach—never eating to a feeling of satiety; a thing which those who suffer with indigestion, have a morbid inclination to do—drink as little as possible of any thing—take as much exercise as the strength will bear; and let that if possible be in cheerful company—so as to keep the mind exhilarated and drawn off from reflection on the *cause* for which the exercise is taken. Shooting, if with a lively companion, and still better, *fox hunting*, which produces temporary and exquisite delirium and forgetfulness of the world, its sickness and troubles, and all that is on the earth beneath, except the fox and the dogs. Fox hunting, if we do not yield too much to the ravenous appetite it creates, is of all remedies the best, for once, but not now A Dyspeptic Man.

(From the St. Louis Beacon.)

COPPER MINES ON LAKE SUPERIOR.

The venerable Samuel Preston, Postmaster at Stockport, Pennsylvania, the contemporary and friend of Dr. Franklin, has addressed a letter to the editor of the New York American, of which the following is an extract:

"Dr. Franklin told me that when he was drawing the treaty of peace with England, in the city of Paris, he had access to the journals and charts of a corps of French Engineers, that had sloops and were exploring lake Superior when Quebec fell to the British; from which charts, he drew the line through lake Superior, to include the most and the best of the copper ore to the United States; that the time would come, when drawing that line would be considered the greatest service he had ever rendered his country, and the copper ore be a greater source of wealth than any other nation possessed; that the facilities of transportation would be well improved, so as to export that copper ore to Europe cheaper than they raised it from their own mines.

"Captains Carver and M'Kenzie both mention the copper ore.

"A young gentleman of my particular acquaintance was three years with the Canadian traders on lake Superior; he said the quantities of copper ore were inexhaustible. He brought samples, of which I have one now before me."

It is now nearly half a century since Dr. Franklin secured these mines for the United States; but they have never yet been made available or advantageous to the country. Subsequent examination shew them to be more extensive and valuable than he had even conceived, and the attention of the federal government has been several times directed towards them. In 1798, when the idea of a navy was entertained, Congress sent an agent to examine them, whose report was of the most flattering kind; but the idea of a navy was soon abandoned, and the copper mines forgotten.

A few years ago, Col. Benton, from this state, on becoming a member of the United States Senate, and having learned from traders and Indians the extensive indications of this metal between the falls of the Mississippi and lake Superior, conceived the idea of carrying Dr. Franklin's plan into effect, and making these mines supply the United States with domestic copper, of which we now purchase more than a million of dollars worth annually from abroad. The first step was to extinguish the Indian title, or to obtain permission of them to work the mines, the latter of which was effected by a treaty negotiated by Gov. Cass, a few years ago. The next step is to authorise individuals to work them; and this was to be done by act of Congress; for which purpose a bill was introduced at the last session of Congress, but did not ripen into a law. In the mean time, copper is indispensable to us, and has to be imported at a vast expense for a great variety of purposes, as the following list of the last year's importation will shew:

In plates, for ships,	$433,000
In pigs and bars,	160,000
For re-manufacture, (old)	70,000
For the Mint,	22,000
Various manufactures,	170,000
In rods and bolts,	20,000

Besides the various compounds in brass, bronze, bell metal, &c. &c.

Conundrum Extraordinary.

An American calculating boy was asked, in a bantering way, "If a pair of boots cost six dollars, what will a hat cost?" He answered readily, "Different prices;" and immediately proposed a similar question. "If a bushel of coal cost 6¼ cents, what will a cord of wood come to?" "I don't know," said the gentleman. "It will come to ashes," said the boy.

UNIVERSITY OF VIRGINIA.

The next session will begin on the 10th of September, and continue till the 20th of July following.

The expenses for the session of upwards of ten months, are as follows:

Board, including bed and other room furniture, washing and attendance,	$100
Fuel and candles, to be furnished by the Proctor at cost, and five per cent. estimated at	20
Rent of an entire Dormitory $16; for half if occupied by two students,	8
Use of Library and public rooms,	15
Professors' fees, if one professor be attended, $50; if two, each $30; if more than two, each $25,	75
	$218

1. Professor of Ancient Languages.
Dr. Harrison.
2. " of Modern Languages.
Dr. Blaettermann.
3. " of Mathematics.
Dr. Bonnycastle.
4. " of Chemistry.
Dr. Emmet.
5. " of Natural Philosophy.
Dr. Patterson.
6. " of Medicine.
Dr. Dunglison.
7. " of Anatomy and Surgery.
Dr. Johnson.
8. " of Moral Philosophy.
Mr. Tucker.
9. " of Law.
Mr. Lomax.

The instruction is conveyed, partly by lectures and partly by the study of approved text books, and in all cases, the assiduity of the student is tested by a rigid system of examination.

Every student, under the age of twenty-one years, is required to attend at least three Professors or two Professors and the Demonstrator of Anatomy and Surgery, unless, when he matriculates, his parent or guardian shall have prescribed, in writing, the schools which he is required to attend, or unless, the faculty for good cause shewn, shall allow him to attend less than three.

Monthly circulars are written to the parents and guardians, stating the attendance of each student at lecture, and exhibiting the student's proficiency and deportment.

To be admitted, the student must be sixteen years of age. He is required to wear a uniform dress, the particulars of which are detailed in the enactments. This rule will be rigidly enforced; the prescribed uniform will have to be worn on all occasions, both within and without the precincts, when the student appears out of his room, except, that in warm weather, he may wear such light gown or coat within the precincts, as the Chairman may approve.

The attention of parents and guardians is particularly drawn to this enactment, in order that their sons or wards may not be provided with clothes which cannot be permitted to be worn.

Students entering the University after the commencement of the session, shall pay board only for the time unexpired, at the yearly rate, but shall pay the full fees and rents at whatever time they may enter.

In the Medical school, one full course at the University is considered by the authorities of the University of Pennsylvania as equal to one course there.

A. S. BROCKENBROUGH, Proctor.

Suspicions that the mind of itself gathers, are but buzzes; but suspicions that are put into men's heads by the tales and whisperings of others, have stings.

PREVENTION OF DEATH.

The following cautions and observations, designed to preserve from premature death, from drowning, lightning, cold, heat, noxious vapors, apoplexy, &c. are copied from the "Pocket Companion," published in 1816, by the "Royal Humane Society, for the recovery of the apparently drowned or dead." This society, since its establishment in 1754 to 1816, has rescued from apparent death four thousand and eighty-seven persons, and rewarded upwards of 18,500 claimants.

CAUTIONS.

1. Never to be held up by the feet.
2. Not to be rolled on casks, or other rough usage.
3. Avoid frictions with salts or spirits, in all cases of apparent death.

Restoration of Life.

What thou doest—do quickly.

THE DROWNED.

1. Convey carefully the body with the head and shoulders raised; to the nearest convenient house.
2. Strip and dry the body; clean the mouth and nostrils.
3. Place young children between two persons in a warm bed.
4. An adult. Lay the body on a blanket or bed, in a warm chamber in winter:—To be exposed to the sun in summer.
5. To be gently rubbed with flannel; a heated warming pan, covered, lightly moved over the back and spine.
6. If no signs of life appear—the warm bath; warm bricks, &c. applied to the palms of the hands, and soles of the feet.
7. To restore breathing—introduce the pipe of a pair of bellows (when no apparatus) into one nostril: the other nostril and the mouth closed; inflate the lungs, till the breast be a little raised: the mouth and nostrils must then be left free;—repeat the process until life appears.
8. Where a bellows, or any proper apparatus cannot be had, immediately attempt to excite the natural inspiration and expiration, by pressure on the breast, ribs and muscles of the body, merely by the hands, so as to press out as large a portion of the air as possible, and then removing and applying the pressure alternately, in order to imitate the natural breathing, and promote the introduction of atmospheric air, in proportion to the quantity pressed out from the air cells of the lungs. This process has proved highly successful; and as any person may apply it as well as a medical professor, it should not be delayed a moment.
9. Electricity early employed by a medical assistant.

INTENSE COLD.

Rub the body with snow, ice, or cold water. Restore warmth, &c. by slow degrees, and after some time, if necessary, the plans to be employed for the resuscitation of drowned persons.

SUSPENSION BY THE CORD.

1. A few ounces of blood may be taken from the jugular vein, and cupping glasses may be applied to the head and neck; leeches also to the temples.
2. The other methods of treatment the same as recommended for the apparently drowned.

SUFFOCATION BY NOXIOUS VAPORS OR LIGHTNING.

Cold water to be repeatedly thrown upon the face, &c. drying the body at intervals. If the body feels cold employ gradual warmth, and the plans for the drowned.

INTOXICATION.

The body is to be laid on a bed, &c. with the head a little raised, the neckcloth, &c. removed; but in all immediate medical assistance, as the mode of treatment must be varied according to the state of the patient.

General Observations.

1. On signs of returning life, a tea-spoonful of warm water may be given; and if the power of swallowing be returned, warm wine or diluted brandy—to be put into a warm bed, and if disposed to sleep, will generally awake restored to health.

2. The plans above recommended are to be used for three or four hours. It is an absurd and vulgar opinion to suppose persons are irrecoverable because life does not soon make its appearance.

3. Electricity and bleeding never to be employed unless by the direction of the medical assistants.

If the resuscitative process be immediately employed, an immense number of lives will be restored.

GOLD.

The attention of the public is becoming more and more drawn to the gold region of Spottsylvania county, Va.

A considerable quantity of the precious metal of the purest quality, continues to be picked up, and we believe some effort is about to be made to explore the vein and work it systematically. We understand that a respectable gentlemen of the county has offered $100 per acre, for 50 acres of the land of Messrs. White, an offer which these gentlemen have taken time to consider. That gold to a considerable amount has already been found, is certain; and that much more will be discovered, we firmly believe. The time is at hand when capitalists should turn their attention to the subject.

[*Political Arena.*

OCTOGENARIAN HAYMAKER.

Mr. Samuel Brigham, of Shrewsbury, has, *eighty years* in succession, mown grass and made hay during each hay season on the farm on which he now lives.—And what is quite remarkable, he has been able the present season to cut his half acre of grass per day. This furnishes a practical illustration of the effect of temperance and steady habits, which in an eminent degree have marked the whole course of this aged and worthy citizen.—*Worcester Repub.*

A man cutting timber about three miles from this place one day last week felled a large white oak, eight inches in the body of which he found deposited a piece of silver the value of six and a quarter cents, and a lock of negro's hair. It appeared that a hole had been bored in the tree about three inches, in which these articles were deposited, and then stopped with a persimmon plug; since which the tree has grown over it five inches. These articles must have been there many years, and what the object could have been in placing them there we leave for others to determine. The piece of money was dated about seventy years ago.

[*Elizabeth City Star.*

THE FARMER.

Baltimore, Friday, September 4, 1829.

☞ **Practical Instructions for the Culture of Silk, &c.**--We have received the first No. of a work, with the above title, published quarterly in New York, by Dr. Felix Pascalis, of the Horticultural Society of New York. The plan appears to be to divide the work into two parts: the first of which to contain practical instructions, and the second to be entitled the Silk Culturist, and to contain intelligence interesting to silk makers generally. The number before us contains a good deal of matter, valuable to those who are engaged in the business, or contemplate being so engaged; and will, therefore, doubtless be sought after with avidity by such persons.

☞ **Large Pippins.**—Three pippin apples were left at the Farmer office a few days ago, measuring 13½, 13¼, and 13 inches in circumference, and weighing, together, three pounds. They grew at Pot Spring, the residence of Judge McMechen, and were taken without particolar selection from a barrel sent to market.

J. S. Skinner, Esq. *Pikesville, Sept. 2d,* 1829.

Sir,—I send you a sample of two kinds of Apples, the produce of my orchard at this place--the *Bell-Flower* and *Holland-Pippin;* they are not so large as another kind I have called the *Monstrous pippin;* but I think they are of much better quality, besides they are *sufficiently large.* They measure, you will perceive, about one dozen to the peck, and are esteemed excellent either for cooking or the table. The specimens I send you are not yet quite ripe or full grown--let them be laid aside therefore a few days, to mellow before using them.

Buds or grafts of these, or any other varieties of the fruit I have, will be furnished with pleasure to you, or any of your friends, if wanted.

Believe me to be,
With great respect, your friend,
James Smith.

[The apples accompanying the above letter, are indeed very fine;—they are fully equal to any we have seen.]

Winter Melon.

Mr. Skinner:

Sir,--What is the *Winter Melon* (figure 57, page 71, of Loudon's Encyclopedia of Agriculture,) which is said to be "*cultivated in different parts of Provence and Languedoc, and especially in the orange orchards of Hieres. It forms an article of commerce.*" Draw an order on your Mediterranean friends for seed, and dont forget me in its distribution. Can any of your eastern horticulturists tell me the botanical name of this *winter melon,* which Loudon has strangely omitted.

Prices Current in Boston, August 28.

Apples, best, bbl. —— a ——. *Beans,* white, bushel .90 a 1.00. *Beef,* mess, bbl. 10.50 a 11.00; cargo No. 1, 9.50 a 10.00; No. 2, 8.00 a 8.50. *Butter,* inspected, No. 1, new, lb. .14 a .16. *Cheese,* new milk, .7 a .9; skimmed milk, 2. a .3. *Flour,* Baltimore Howard-st. 6.00 a 6.25; Genesee, 5.75 a 6.00; Rye, best, 3.50 a 3.75. *Grain,* Corn, bu. .60 a 62; Rye, .63 a .65; Barley .67; Oats .42 a .45. *Hogs'-Lard,* 1st sort, new, lb. .9. *Pork,* clear, bbl. 17.50 a 18.00; Navy, mess, 13.00 a 13.50; Cargo, No. 1. 13.00 a 13.50. *Seeds,* Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool,* Merino, full blood, washed, .32 a .45; do. do. unwashed, .18 a .22; do. three-fourths, washed, .28 *a* .32, do. half blood, .24 *a* .28; do. quarter, washed, .22 *a* .24; Native, washed .20 a .23; Pulled, Lambs', 1st sort, .34 a 36; do. 2d sort, .22 a .25; do. spinning, 1st sort, 27 a .30.

Prices Current in Philadelphia, September 1.

Bees-wax, yellow .22 a .23; *Beans,* bushel $1.00 a 1.25; *Beef,* mess 10.50 a 11, prime 9 a 9.50, cargo 7; *Butter,* No 1, .7½ a .8, No. 2, .5 a .6; *Cotton,* New Orleans .10 a .12, Upland 9. a .10, Tennessee 9. a .10, Alabama 9. a 10; *Feathers,* South. .32 a .34, West. .32 a .34; *Flax* .7½ a .8. *Flour,* sup. 5.25; fine, 5.00 a 5.25; Rye 3.50 a ——; Cornmeal, hds. 11.50 a ——, bls. 2.10 a 2.12½; *Flaxseed,* cask —— a ——; bu. 1.12½; *Grain,* Wheat 1 00 a ——; Rye .50 a.60, Corn l. c. white, .46 a .48, l. c. yellow, .48 a .50, u. c. round, .52 a .54; Oats .25 a .30, Barley, Pa. .— a .—; do. East. .55 a .60; black-eyed Peas .40 a .50. *Hams,* Jersey .9 a .10, Virginia .8 a .9, Western .8 a .8½; *Hemp,* 200 a 210; *Lard,* .6 a .8; *Oil,* linseed, .68 a 69; *Pork,* mess, 13.25 a 13.50, prime 11.50 a —, cargo 10.00 a 10.50; *Rice,* 2 60 a 2.87½; *Tobacco,* Kentucky .3½ a .7, Vir. .4½ a .7; *Wool,* common washed lb. .26 a .28, half blood 28. a .31, three quarters blood .31 a .32, full blood .31 a .38; unwashed, generally 10 cents less, according to quality.

ALMANAC.

1829. September.		Sun. Rises.		Sun. Sets.		Length of days.		Moon Sets.	
		H.	M.	H.	M.	H.	M.	H.	M.
Saturday,......	5	5	38	6	22	12	44	10	38
Sunday,........	6	5	39	6	21	12	42	11	26
Monday,.......	7	5	40	6	20	12	40	morn	
Tuesday,......	8	5	41	6	19	12	38	0	19
Wednesday,..	9	5	43	6	17	12	34	1	19
Thursday,....	10	5	44	6	16	12	32	2	22
Friday,.........	11	5	45	6	15	12	30	3	36

Moon—First Quarter, 6th, 6 h. 53 m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There has been a small advance in flour; from wagons, Howard street, from new wheat is selling at $5.25, and from stores at $5.37½ a $5.50. An advance will also be noticed in grain, several cargoes of red wheat having been sold at $1, and one cargo of red, free from garlic, brought $1.02. *Live stock.* Business in beef on the hoof is rather more lively at an advance of 25 cents, than at the date of our last.

Tobacco.--Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 5.00—red, 4.00 *a* 6.00—fine red, 7.00 *a* 8.00, for wrapping 5.00 *a* 10.00—Ohio, common, —— *a* ——.—good red —— *a* ——.—fine yellow —— *a* ——.—Rappahannock, 3.00 *a* 3.50—Kentucky, fine 4.00 *a* 5.00—wrapping, 4.50 *a* 7.00.

Flour—best white wheat family, $6.25 *a* 6.75*—superfine Howard-st. 5.37½ *a* 5.50; city mills,— *a* 5.00 Susquehanna, ——. Corn Meal, bbl. 2.37½—Grain, best red wheat, new 1.00 *a* .—;—best white do. new 1.05 *a* 1.10; ord. to good, .35 *a* .95—Corn, white, .40 *a* .42½ yel. .40 *a* .42—Rye, —. *a* .45—Oats, .20 *a* .22—Beans, 1.10 *a* 1.15—Peas, .60 *a* .65—Clover seed, 3.25 *a* 3.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—Barley, .45 *a* .50—Flaxseed, .75—Cotton, Virg. .9½ *a* .10—Lou. .11 *a* .12—Alab. .9 *a* .10—Mississippi .10 *a* .12—North Carolina, .8 *a* .9—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .21½—in bbls. .22 *a* 24½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* ——; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl 5.50; do. trimmed, 6.50—North Carolina, No. 1, —— *a* 5.50—Herrings, No. 1, bbl. 3.75 *a* 4.00; No. 2, 3 50 *a* 3.75—Mackerel, No. 1, 6.50; No. 2, 6.00; No. 3, 4.50—Bacon, hams, Baltimore cured, .9 *a* .10; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .30—Plaster Paris, cargo price per ton, $3.50, ground, 1.25 bbl.—Prime Beef on the hoof, $4.50 *a* $5.25.

* Six dollars and seventy-five cents by the single barrel. for Ellicotts' Patapsco white wheat family flour.

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AGRICULTURE.

(From the Virginia Literary Museum.)

COMMON SUGAR.

History.—The term sugar has very incorrectly been supposed to come from the Latin *Succus*, a juice. It has a long line of ancestors as may be seen by the following etymological order.

Schaskara, Sanscrit, from the Tibetanish *Sa-kar*, signifying "white earth." *Assukur* or *Saccar*, Arabic. *Sheker*, Hebrew. σαχχαρον (*saccharon*) Greek. *Saccharum*, Latin. *Zucharum* and *Zuchra*, Monkish Latin. Açucar, Spanish. *Zucchero*, Italian. *Sucre*, French.

The plant which furnishes this substance, is the *saccharum officinale* of botanists: it is also called *arundo saccharifera*, in consequence of its resemblance to reeds, and from this term comes our English name, *sugar cane*. It grows naturally in India and many of the islands to the east, whence it found its way into Europe across the Red sea.—Its existence was first made known to us by the conquests of Alexander the Great; and Strabo relates that Alexander's admiral, Nearchus, found it in the East Indies, twenty-five years before the birth of Christ. It appears probable, that some of the sugar trade from India and Arabia found its way into Africa across the Straits of Babelmandel; for the cane grows luxuriantly at present, along the whole course of the Nile. It has been supposed, that the ancient Jews were very early acquainted with the sugar cane, from the occurrence of a Hebrew word in the sacred writings, which translators consider to signify *sweet cane*. There is, it is also said, in that language, a term *sachar* or *sheker* which signifies *inebriation*, and the circumstance has been regarded as a proof that sugar, in the separate state, was also known; for this substance is found to be necessary for the formation of inebriating, or, at all events, spirituous drinks. Cinnamon (so translated) and other spices, indigenous to the East Indies, are also mentioned in the Old Testament, so that it is not improbable that a trade was actually carried on by this ancient people, even at so early a period, with countries where the cane was cultivated. The most authentic writers, who attempt to describe sugar, did not live farther back than a century before the birth of Christ; and, at that period, it was an article of trade from India to the Red sea. Varro (68 B. C.) describes a "fluid pressed from reeds of a large size which was sweeter than honey." Dioscorides observes that "there is a kind of honey, called *saccharon*, found in India and Arabia Felix, and describes it as having the "appearance of a salt, and as being brittle when chewed." He also gives some of its supposed medical virtues. Before the discovery of the West Indies by the Spaniards, (1492) and of the East Indies by the Portuguese under Vasquez de Gama, (149 abundance of sugar was made in the islands of Sicily, Crete, Rhodes and Cyprus. Indeed it appears that, as early as 1166, the juice of the cane was converted into sugar in Sicily. But all these islands even as far back as 669, were the possession of the Saracens, (a people originally from Arabia, where the sugar cane was well known,) it is impossible to determine at what period their invaders introduced the plant from the east. During the crusades, the north of Europe was first supplied with the article, in small quantities, and a medicine, by Venetian merchants chiefly; but the progress of the *plant* westward was considerably slower. The Moors are said to have introduced it into Spain, where it grows well, and was very extensively cultivated previous to the discovery of America. At the beginning of the fifteenth century the Spaniards and Portuguese established it upon the islands of Madeira, Canary and Cape de Verd shortly after their discovery.—In less than a century from this period, the *West Indies* were discovered by Columbus (1492); and the question now occurs, whether the Spaniards and Portuguese introduced the plant from their possessions in the Atlantic ocean, or whether it was indigenous in the new world.

We must certainly admit, that the sugar cane found its way far westward, when it became established upon the African islands just mentioned; and we might almost confidently presume, that the windward isles, (next in a westerly direction) became stocked from them.

Herrera, a Spanish historian, (1600) states, that the sugar cane was transplanted into Hispaniola from the Canary islands in 1506; but this assertion is invalidated by the testimony of Peter Martyr, who was cotemporary with Columbus, and derived his information from the very letters sent by the discoverer to his king. Martyr states distinctly, that, at the second voyage of Columbus (about 1494) the cane was established upon the island of Hispaniola. It appears, however, from this historian, that the plant did not pre-exist. Columbus, in his letters home, states, that he recognized no plant, among the islands then discovered by him, except the pine and palm; yet the sugar cane, at this period, was so generally cultivated in old Spain, that we can hardly suppose him to have been ignorant of its appearance when he first visited Hispaniola. As a further argument on this side of the question, it may be stated, that Columbus upon his *second* voyage out to Hispaniola, carried large quantities of the cane root with him; which would, of course, have been unnecessary had he noticed the plant upon the island at his first visit. The subject, however, is one of much ambiguity, and subsequent authorities are so far removed from the time of discovery, as to render any conclusion unsatisfactory.

Without dwelling longer, the most approved authorities may be thus noticed chronologically.

1555. Jean de Leary, protestant minister and chaplain to a Dutch garrison upon the river Janeiro, states, that, about this period, he found sugar canes growing in great abundance, upon the banks of the river in places which had never been visited by the Portuguese.

1620. Jean de Laet, director of the Dutch East India company, asserts that the cane grew spontaneously in the island of St. Vincent.

1625. Or about the same period as the foregoing, Thomas Gage, an Englishman, visited New Spain, and expressly enumerates the sugar cane among the provisions furnished by the Caraibs of Gaudaloupe. At this time, according to Labat, the Spaniards had not attempted to cultivate *any* of the windward isles.

1685. Father Hennepin, in the reign of William and Mary, visited North America as a missionary, and describes the sugar cane as growing luxuriantly at the mouth of the Mississippi, or, as it was then written, Mechasipi.

1693. Labat, the celebrated Spanish historian, visited the West Indies as a missionary, and remained nearly twelve years. At this period, many of the islands were still in possession of the Caraibs. Labat is decidedly of the opinion that the sugar cane is a native of the continent and islands of America.

1778. About this period Captain Cook found the plant growing upon many of the islands in the Pacific ocean.

Bryan Edwards is decidedly of opinion, that the sugar cane is indigenous to our continent. In the foregoing accounts, he considers there is no contradiction; for, as he observes, "the sugar cane might have grown spontaneously in many parts of the new world; and Columbus, unapprised of the circumstance, might likewise have carried some of the plants to Hispaniola." How far this conclusion may appear satisfactory to others, cannot be determined; but it should be well remembered, that while there is *mere supposition for the pre-existence*, we have positive record, made at the very time that the sugar cane *was introduced*, even as early as during the second voyage of Columbus.

However we may feel inclined to view this subject as matter of history, it is very certain that our country is wholly indebted to the Spaniards and Portuguese for the early introduction of the art and implements necessary in the extraction of sugar. Even as early as 1535 no less than thirty sugar mills were in operation upon the island of Hispaniola alone.

While the Europeans derived their supply of sugar from Arabia, Africa, and the eastern islands of the Mediterranean sea, it continued at so high a price that it was seldom employed for other than medical purposes; but its valuable properties soon became too obvious to encourage so partial a distribution. The cultivation of it in Spain and the south of Europe generally, together with its introduction into the western isles, where it produced very superior sugar, lessened the price considerably; but it was not until after the discovery of America, that the article became sufficiently abundant to be used with food, particularly in the north of Europe.

Near the close of the 15th century, a Venetian introduced into Europe the process of refining sugar and forming it into loaves. For this he is said to have received no less than one hundred thousand crowns; but his claim, as a discoverer, has been questioned upon the supposition that the art was previously known to the Chinese. It is said, however, that these people have, at all times, esteemed *sugar candy* above every other preparation of this substance, and they set no value upon the rest. Hence, perhaps, it may appear probable, that loaf sugar was first formed by Europeans.

Other writers have advanced the opinion, that the existence of *purified* sugar may be traced to a very early date, inasmuch as Discorides describes the article known to the ancients, as a substance "white like salt, brittle between the teeth and sweet like honey."

It is very certain, however, that the testimony of ancient writers, upon this subject, is not entitled to the slightest credit. Their descriptions are so vague that it has been questioned whether they allude even to the same species of sugar, which the moderns so extensively employ. Lucan, for example, in the line

> "Quique bibunt tenera dulces ab *arundine* succos."

written in allusion to an eastern nation in alliance with Pompey, is supposed to mean a kind of bamboo. Even the ancient Egyptians, the Phenicians, Jews, Greeks and Romans, have been, by some writers, excluded from an acquaintance with the plant now cultivated.

Extraction.—The sugar cane bears a resemblance to maize or Indian corn. It is jointed like a reed, has long and narrow leaves, and, when fully grown, sends, from the centre of these, an arrow, terminated by a panicle or plume. Its height varies from three to twelve feet, and is considered to be very indicative of the soil. A variety, derived from Otaheite, and first established by the English at Antigua, has been regarded as more productive and hardy than the common one, to which the above description applies; but as very little is known in relation to it, it will be necessary to qualify any portion of the observations which follow.

In the West Indies the cane flowers, but, owing to some unnatural obstacle, the organs of fructification prove sterile. It is propagated, however, with the greatest ease by means of cuttings, for which purpose the top shoot is preferred. The impossibility of getting the cane to grow from *seed*, has justly been urged as an argument that the plant was not indigenous to the West Indies; and this conclusion may, perhaps, derive force from the fact, upon the authority of Bruce, that in Abyssinia and other parts of the east, the seeds prove productive. The *climate*, best adapted to this plant, is that of the torrid zone, but it may be made to grow even beyond the fortieth degree of latitude. It requires a strong, deep *soil* and a great deal of moisture to bring it to maturity. Among the accidents and diseases to which the cane is exposed may be enumerated the following. Hurricanes occasionally prove very destructive by prostrating whole plantations. The lowland cane is very subject to attacks from rats, while in highland situations, upon some of the islands, the monkey is the most formidable enemy. When the weather has been very wet, late in the season, a disease called *blast*, (and occasioned by the insects of the genus *Aphis*) proves very fatal; red ants, also, commit great depredations by undermining the roots, and are the more formidable as they can only be removed by winds which are equally destructive to the crops. The rats and monkeys have been introduced by Europeans. When the plants are sufficiently mature they are trimmed, cut into pieces about a yard long, tied up in bundles and passed through the mill. The juice which is squeezed out, runs into a vessel called the receiver, and is ultimately boiled by fires made with the bruised stalks. If the cane juice is kept longer than twenty minutes it ferments, so that it is necessary to convey it at once to the boiling house. Here it is boiled with some quick lime; and the vessel in which this operation is performed is called a *clarifier*. Acids prevent common sugar from crystallizing, and the object of using lime, as a *temper*, is to neutralize them.

By smothering the fire and allowing the juice to remain at rest for a short time, the lime and impurities rise to the top and form a viscid scum, which adheres sufficiently long to allow the clarified juice to be drawn off and to be transferred to the first boiler. In large establishments there are three or four large pots for boiling. The operation consists in skimming off the froth as it rises, in adding more lime if necessary, and in transferring the contents of one boiler into the next in advance, until the juice, very much concentrated, is lodged in the last and smallest of these vessels. This pot is called the *teache:* which appears to be a corruption of the terms *tactio* or touch. The syrup is boiled in it, until the sugar cools in threads upon being drawn out. The old practice was with the *finger* and *thumb*, but a more accurate judgment, respecting the graining, may be found by placing a drop upon a plate of glass and observing it as it cools. When sufficiently concentrated, the syrup is conveyed into the cooler (a flat wooden trough,) where it is stirred with paddles. The hard sugar crystallizes roughly, and partly separates from the molasses; but this is done more effectually by putting the sugar, when cool, into hogsheads, pierced with holes at the bottom and loosely plugged. The molasses, in about three or four weeks, runs off through the plugs, (which are generally spongy and made of the stalks of plantain leaf,) and is received in a cistern placed beneath the hogsheads. Sugar, thus drained, is called *muscovado*, *raw*, or *brown sugar*, and for every pound, at an average, requires a gallon of fresh juice. So apt, however, is the juice to ferment, that the odour of spirit (*alcohol*) has been recognized in the *unbruised* cane stalks, when allowed to lie too long. Dutrone obtained liquors very analogous to *cider* and *white wine*, by forcing the juice out of cane stalks, that had been cut for eighteen days or more, and making it ferment.

Clayed Sugar.—As the draining in hogsheads is not sufficient to separate all the molasses, the following process is adopted, generally, upon the French and Dutch plantations. After the syrup has become sufficiently concentrated, it is cast at once into conical shaped earthen pots, placed with the apex or small end lowest. The points of these pots are plugged, but as soon as the syrup granulates the plugs are removed and the molasses allowed to drain off into vessels beneath. After this a cake of *moist* pipe clay is placed upon the open end above, and its place supplied by others, until water enough has been imbibed by the sugar to render it tolerably white. It is then removed from the moulds, dried by the stove or sun, broken up and packed in boxes for exportation, under the names of *cassonade*, *clayed*, and *Havana sugar*. Several improvements have been introduced with a view of rendering this kind of sugar sweeter and heavier than it is. Among them may be mentioned that of placing a layer of very white sugar *between* the cake of moist pipe clay and the sugar in the pots. The water from the clay, by passing through the white sugar, becomes a pure and strong syrup, so that it removes little more than the molasses in its passage downwards. The idea of using clay is said to have been suggested, at Brazil, by the accidental circumstance of a hen, with muddy feet, walking over some coarse brown sugar. The workmen soon observed that the substance became white under her footsteps.

Both Muscovado and clayed sugar, besides colouring matter, contain a considerable quantity of chalk. The latter substance is derived from the lime, employed during the boiling, under the name of *temper*, and, in order to understand how it appears in the sugar after all the skimming and purification, we must bear in mind, that the lime not only neutralizes the acids of the cane juice *but unites with some of the sugar itself*. This is so true, that when lime enough is present, a quantity, equal to *half* the weight of sugar, at least, will be taken up. But the compound, though soluble, very soon decomposes, at the expense of the sugar, and the lime, at the same time, becomes converted into *chalk*, which proves too insoluble to be washed out by the subsequent draining.

Loaf Sugar is the result of a separate art, carried on in establishments far removed from the West Indies. The imported clayed sugar may be employed for the purpose. A solution of it is made, in a mixture of lime water and bullock's blood, and then boiled; at this temperature the blood coagulates, and, as it assumes the solid form, effectually entangles the impurities. To render the clarification still more perfect, fresh charcoal, prepared from *animal* substances, is added, by some refiners to the solution. After the coagulated blood has risen to the top, it is skimmed off, and the clarified syrup strained through a linen cloth. The same steps are taken to complete this operation as have been described for claying sugar, only that, in the present case, *glazed*, conical, pots are employed; and when the *loaves* have been removed and dried in a stove for about eight days, they are wrapped up in blue paper for sale. In the ordinary process of refining *raw sugar*, from twenty to thirty-five per cent. of molasses separates, of which two thirds perhaps are formed by the high heat used in concentrating the syrup.

Sugar Candy.—This is the purest form of sugar, and would, no doubt, be in universal use but for the additional expense attending its preparation. Generally speaking, the syrups which have drained from the *loaves* in the foregoing operations, and which are too dilute for *graining*, are slightly concentrated by boiling, and set by in pots to cool slowly. Strings or twigs are fastened within the vessels so as to be covered over by the syrup, and upon these the candy forms. If cochineal has been added the crystals take a delicate pink or red tinge; if indigo, the colour is pale blue; and when essences or volatile oils have been dropped into the vessels, the candy becomes perfumed.

Molasses, being regarded as a distinct species of sugar, will be noticed elsewhere.

Rum or taffia, results from the formation of all the scum of the boilers, together with refuse sugar, molasses, &c. It is obtained by subsequent distillation, and takes the place of brandy in countries where the cane is more cultivated than the vine.

The description here given of the art of making sugar, is as brief as the subject will admit, yet it is hoped that what has been said will obviate the necessity of repetition in any future case.

Sugar, alone, does not often constitute an article of food, nor is it usual to ascribe to it much medicinal virtue; yet, upon one occasion, it is known to have sustained a ship's crew when other provisions had given out; and, at the same time, effectually checked the progress of scurvy, which was proving very destructive to the sailors. Dr. Rush advocates its use warmly not only as being very nutritious, but as an article of the Materia Medica. Edwards observes that "the time of crop in the sugar islands, is the season of gladness and festivity to man and beast. So palatable, salutary and nourishing, is the juice of the cane, that every individual of the animal creation, drinking freely of it, derives health and vigour from its use. The meagre and sickly among the negroes exhibit a surprising alteration in a few weeks after the mill is set in action, &c. In pharmaceutical preparations, sugar not only disguises nauseous substances, but, as a syrup, effectually serves to incorporate water with oils and raisins. In domestic economy sugar has no rival; but even in some of the arts, not subservient to our *palates*, this article is employed. Thus the plasterer mixes it with his mortar for out door work, in order that the latter may soon become firm and able to resist washing by rain. The sugar, as already explained, unites with the lime, and very speedily converts it into chalk and limestone, which are quite insoluble. Upon the same principle it is of great service in giving a hard finish to white wash, and very effectually prevents the lime from rubbing off. These and other uses must, however, be passed over as occupying too much room. For the same reason, and because such details are but little relished by general readers, it will be necessary to omit noticing the physical and chemical properties of sugar. N.

CONSUMPTION OF SUGAR.

The following, taken from the "New Orleans Advertiser," offers interesting data in regard to the manufacture and consumption of sugar.

Sugar Calculations.

Exports Foreign Sugar.		*Imports Foreign Sugar.*
8,999,992 lbs.		51,686,955
1,681,140		5,249,006
9,956		
10,691,088	Total import,	56,935,961
	Total export,	10,691,088

Amount foreign sugar consumed—lbs. 46,244,873

By the last report of the secretary of the treasury, it appears that for the last treasury year, there were imported into the United States 56,935,951 lbs. of sugar, that there were exported 10,691,088 lbs., leaving the quantity of foreign sugar consumed 16,244,873 lbs. or a little more than 46,000 hogsheads, at the rate of 1[illegible]0 pounds per hogshead. Louisiana exported coastwise 60,000 hogsheads, sends 15,000 up the river, and consumes 5,000, making 80,000 hogsheads.

The whole consumption of the United States is thus fixed at 126,000, or 130,000 hogsheads. We suppose that from increasing population there is an annual increased consumption of 5,000 hogsheads, viz: of 1 26th, upon which principle the United States will double her population in 26 years, which is rather sooner than it will take place. We suppose the increased production from increased cultivation to be 15,000 hogsheads, which we doubt not it will average for the next [illegible] years: deduct the increase of consumption from the increase of production, and the difference is [illegible]00 hogsheads.

If these data are correct, the production will overtake the consumption in five years. When this takes place sugar will be as unprofitable a cultivation as cotton. The Louisiana bank, Consolidated Association, and other similar causes, have given an inflated value to property. These materials for calculation are given for the benefit of those who think for themselves. Enterprise is frequently another name for wild speculation. It is a part of our national character to overdo every thing. Perhaps these observations may induce some to pause before they assume a burthen of debt.

SUGAR AND MOLASSES.

Some time since we saw it stated that Mr. Willie, the intelligent editor of the New-Orleans Price Current, had it in contemplation to send an agent to all the sugar plantations of the state of Louisiana with a view of ascertaining the quantity of sugar and molasses made at each; the returns to be arranged in a tabular form, accompanied with such remarks and explanations as would enable the reader, at a glance, to ascertain the most interesting information relative to these valuable manufactures. We have not seen a copy of this useful document; but from an extract made by the editors of the Baltimore American, it appears the names of the planters are arranged under the heads of the different parishes in which their estates are situated, and the number of hogsheads of sugar and molasses made by each, is placed in opposite columns. The distance of the plantations from New Orleans is also given. The following recapitulation will shew the aggregate amount of the two articles made in the several parishes:—

Parishes.	*Hhds. sugar.*	*Hhds. molasses.*
Point Coupee	535	242
West Baton Rouge	883	420
East Baton Rouge	558	260
Iberville	2,249	998
Ascension	6,576	3,055
St. James	8,278	3,633
St. John the Baptist	9,000	3,851
St. Charles	15,717	7,309
Jefferson	12,696	5,918
Orleans	2,787	1,164
St. Bernard	7,656	3,614
Plaquemines	7,592	3,354
Attakapas and Opelousas	6,515	2,314
Bayou Lafouche	5,913	2,757
Barataria	1,010	485
Total,	87,965	39,874

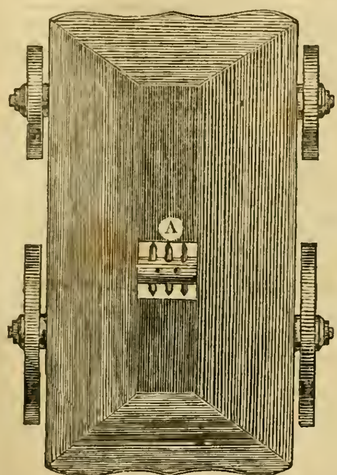
Two hundred and six additional planters have engaged in the business, but did not contribute to the last year's crop; they will produce sugar this season, and greatly increase the above aggregate. The plantation of general Wade Hampton, seventy miles above New Orleans, is the most extensive, the product having been 1,640 hds. sugar, and 750 hhds. molasses. The next largest amount produced was 999 hhds. sugar, and 41 hhds. molasses, on the estate of Mr. Labranche ten miles above New Orleans. Several other estates produced upwards of 900 hhds. sugar, and from this number the products gradually decrease to the smallest amount.

[*Niles' Reg.*

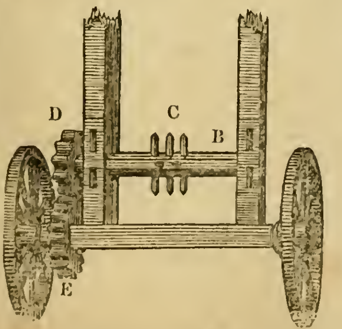
MANURING WAGONS.

A patent has recently been obtained by James Bowman, Esq. of Beaufort, South Carolina, for a method of scattering manure by means of machinery. Every agriculturist is aware of the immense labor attending this process, as it is ordinarily performed; a labor so great as frequently to prevent its being undertaken, notwithstanding the manure may be at command. The scattering, when done by hand, is generally very irregular, the consequences of which are plainly to be seen in the unequal growth of the crop, as vegetation advances. These difficulties have been completely obviated by the invention of Mr. Bowman, who has satisfactorily tested the value of his machine, before applying for a patent; the facility, rapidity, and perfection with which it acts, not only excited the admiration of a number of intelligent planters in his immediate neighborhood, who witnessed it, but far exceeded his own expectations. The plan was undertaken without the most remote idea of obtaining a patent, which was suggested only by the excellence of the instrument itself.

The accompanying engravings will afford a very correct idea of the construction of the wagon, and the apparatus for scattering the manure. Fig. 1 gives a bird's eye view of the body of the wagon, which is of the size commonly used for agricultural purposes. Its sides are inclined planes, meeting the bottom at an angle, capable of being raised from 60 to 85 degrees. In the bottom, near the hinder axle, there is an opening made, as seen at A, of about two feet in length, and eighteen inches in width.



Through this opening the manure is to pass, as it is scattered by the machinery, seen in Fig. 2, which represents the hinder part of the frame of the wagon to which it is attached.



B is a revolving shaft, usually made square, and which crosses the bed of the wagon at a short distance from the axle. This shaft carries ten pins, made of iron, or of any other suitable material. These extend out a sufficient length to occupy the aperture left in the bottom of the wagon, but without touching its sides or edges. These are seen at C, and also in the opening in Fig. 1.

Upon the end of the shaft, there is a cog wheel, D, which is turned by a similar, but larger wheel, E, fixed on the hub of one of the hind wheels; and, of course, when the wagon is drawn forward, the shaft will revolve, and the manure be scattered. Mortise holes are represented upon the frame, on each side of the shafts; these are to receive wedges, by means of which the shaft may be thrown in or out of gear. An ordinary hand can drive the wagon, and shovel the manure towards the opening, and in this way perform the labor of several strong and able hands.

[Messrs. Sinclair and Moore, of the city of Baltimore, have been appointed agents for the sale of the above useful improvement in agriculture, by the patentee.]

(From he Agricultural Reader.)

ON THE CULTURE OF WHEAT.

Wheat has two sets of roots.—There are other reasons, why wheat should flourish better, were it buried deeper than it generally is, in addition to those already suggested. "A grain of wheat when put into the ground at the depth of three inches, undergoes the following transformations. As soon as the farinaceous matter, which envelopes the frame of the young plant contained within it, is softened in the milky state, a germ is pushed out, and at the bottom of that germ small roots soon follow. The roots are gathering strength, whilst the germ, by the aid of the milky fluid is shooting upwards, and when the milk is exhausted, the roots are in activity, and are collecting nourishment for the plant from the soil itself.

"This is analogous to the weaning of the young of animals, which are never abandoned by the mother till they can provide for themselves, but the care of nature does not end here; when the germ has fairly got above the surface, and become a plant, *a set of upper roots* are thrown out close to the surface of the ground, which search all the superficial parts of the soil with the same activity as the under roots search the lower parts; and that part of the germ which separates the two sets of roots is now become a channel, through which the lower roots supply the plant with the nourishment they have collected.

"What an admirable contrivance to secure the prosperity of the plant! Two distinct sets of roots, serve, in the first place, to fix the plants firmly in the ground and to collect nourishment that comes naturally from the atmosphere, or artificially as manure to the surface; and save the further purpose of being the base of new stems, which are tilled up, and so generally increase the productiveness of the plant."

From these facts it is evident, that when the grains of wheat lie near the surface, as they mostly do when covered with the harrow only, these two sets of roots are necessarily crowded together; so as almost to become indistinct; they go out together to collect their food *from the same pasture,* if we may so express it, and the plant cannot be supposed to be so well nourished as when the lower set of roots is deposited at the depth of three or four inches in the soil.

It further follows from these facts, that wheat for sowing should always be good of its kind. "It is not possible," says the writer in the New Hampshire Agricultural Repository, "that a shrivelled kernel will send up as vigorous stalks as a full kernel. In the first stages of its growth, the stalk depends on its parent seed. If that be full of nutriment it will send out strong radicals and a large blade.—Because shrivelled grain will come up, some will sow it and even prefer it to better grain, because it will seed more ground."

Preparation of the Seed.—"If the wheat be impure or diseased," the above writer observes, "it should, before sowed, be cleansed and receive a certain process of preparation. Many noxious seeds are of different magnitude from the wheat, and they may be separated by a sieve. Many are light and will rise in water. These when the wheat is immersed will float upon the water, and may be skimmed off. The practice of steeping wheat is useful, because by this means, it may be brought forward earlier. While the field is preparing by cultivation and by the warmth of the sun, the vegetative powers of the seed may be excited; and it will come up nearly a week sooner than if it had been put dry into the ground. This is no inconsiderable benefit.

But if, instead of water, ley, brine, a solution of saltpetre, or urine be used, the benefit will be greatly increased. These substances impregnate the kernel with nourishment adapted to the growth of the grain, which in its infantile state may be benefitted by artificial assistance.

Or, if there be any latent causes of disease in its product, the substances applied sometimes remedy the evil. The offensive qualities given to the seed by the aforesaid methods prevent worms from feeding upon it in the ground. When the time of sowing arrives, the pickle should be poured off, and newly slacked lime, or ashes, be intermixed with it. This answers a double purpose; it occasions a separation of grains from the hand of the sower, and gives an additional action to the vegetable power of the seed.

Principal diseases of Wheat.—The principal diseases of wheat are blight and smut. Different opinions prevail respecting their causes. A few remarks on the subject will lead the farmer to be more observing, and he may, perhaps, make very important discoveries.—Blight or rust takes place between the time of the kernel's passing from its milky state to a state of ripeness. After the straw becomes yellow, rust often appears on the upper part of the stalk, which is a sure indication of blight.

In seasons when the weather is cool and the temperature not very changeable, it is least subject to this disease. In 1816, the summer was the most generally cool of any for many years; and the wheat crop was the largest and best of any within the memory of the writer. There is a striking analogy between vegetable and animal organization. Sudden changes from heat to cold, and from cold to heat, are often injurious to both.

Rust takes place in warm, damp weather; and at that stage of the grain just mentioned. When the straw has become yellow, its texture is less firm in its green state; and dampness, especially warm continued dampness, adds much to its weakness.—During this enfeebled state of the stalk, the sap, in consequence of great heat and moisture, is propelled upwards by more than ordinary force and in an unusual quantity.

The vessel being pressed in an uncommon degree bursts; and the sap which was on its way to support and mature the kernel, oozes out and forms a dark colored rust on the stalk. The grain is deprived of its usual and necessary degree of nourishment, shrinks and becomes very small and light. Hence, it appears that rust is the effect and not the cause, as many suppose, of blight. The only remedy yet known, is to bring forward our wheat crop as early as we can; and if possible, escape the weather, which occasions this disease.

Another disease to which wheat is subject, is smut. When the kernel is formed and consists of a milky substance, instead of becoming a white and heavy flour, it is converted into a black dust. This disease most frequently occurs in warm moist weather, and on the richest fields. This, as far as it extends, is more pernicious than blight, but it does not frequently happen. Writers on the subject are not entirely agreed in respect to its cause.

If seed wheat must be taken from a smutty crop, let it be immersed in water; the infected kernels and the smaller impurities will float on the top and may be taken off; then let it be steeped in pickle, as has been described; and it is presumed that there will be no sickly contagion carried to the field. It is strongly suspected that the true causes of this disease have not been yet discovered.

Harvesting.—Some suffer their wheat to remain uncut till the stalk is dry and the kernel is hard. There is one advantage in this method; the grain may be secured on the day it is reaped; and of course there is less danger from unfavorable weather. But it is better on several accounts to cut it when there is a little greenness remaining about the joints of the stalk. The sap in the straw will prevent the kernel from shrinking.—The grain will be whiter and the skin thinner. There will be less waste on the ground by its shelling out, and the straw will be much better fodder.

HORTICULTURE.

(From the Southern Agriculturist.)

ON THE CULTIVATION OF THE PEACH.

By Henry Ingraham.

Dear Sir,—In reply to your note, requesting me to inform you in what manner I treat my peach trees, I have to observe:—1. I never import my trees, having been uniformly unsuccessful. I bud on the common plum (*Chickasaw,*) from year to year, say ten or twelve, so as to have young trees, to replace the old ones. I prefer the stock about three quarters of an inch diameter, which they attain the second year, and bud in August, or earlier, if the sap is sufficient, as near the surface as I can, with a view (on transplanting,) to place the plum stock as near the surface as possible. My reason for adopting this plan, is, in consequence of the great strength of the sap causing the bud to grow with such luxuriance, as to fall out from its own weight, and if not destroyed, makes an uncomely growth, the peach stalk becoming much larger than the plum on which it is budded.

Having once obtained a good stock of the best peaches, with common attention, I am never without them. With regard to the treatment, I trim partially every year, according to the age of the tree. An old standard requires much cutting down, as it produces more wood, which, if allowed to stand, will injure the fruit materially. I never thin my peaches, (as some of my neighbours do,) for I am of opinion that the wind causes the superfluous fruit to drop, and I have frequently picked a ripe peach from the side of one not half matured, which has in a little time been perfect. The greatest enemy our peach tree has to encounter in this climate, is a white worm, which perforates the bark near the surface of the ground, and not unfrequently under. I am undetermined as to the particular season they commence their depredations, but think they are in embryo in the fall, for their ravages are very visible in the spring, when the blossoms of the peach put forth. The leaves which follow, bear evident marks of decay and ill health.—I have even in this late stage restored them, by applying the knife immediately to that part of the tree already mentioned; by scraping the gum, which invariably issues from the part affected, I have found the worm alive. This mode of destroying them, however, is attended with a risk of injuring the tree, and I have since adopted the plan of scrubbing my trees every fall (say October,) with soap and ashes, since which, I have never been troubled with them. I think the alkali, from the ashes destroys the eggs of the worm—hence my opinion as to the season they are hatched. In addition to this, the operation cleanses the bark, and imparts a new vigour to the tree. You will, on a reference to Squibb's Gardener, (Mr. Hume has had a new edition printed,) find a remedy for this worm, which I put in practice, and thought it succeeded well for some years, viz: Digging a hole around the roots and filling it occasionally with urine. My peach trees suffered last year in consequence of my building near them, and being much bruised. I have, however, some which ripen from the 20th of June to November, buds from which, at the proper season, you are very welcome to. The large peach alluded to in your note, ripens in August, and I have frequently had them to weigh three quarters of a pound.—Cobbett, in his American Gardener, writes from Long Island, and asserts that peach trees never decay, and that by proper trimming, they may be made to produce fruit for a number of years; in short, "a peach tree never dies." This I know from experience, is not applicable to our climate. A peach tree, with every care bestowed on it, is on the decline in ten years, at least I have found it so. I have at this age experimented on them, by sawing off the trunk near the ground, (say twelve inches,) and on its throwing out shoots, have budded on the new wood, and obtained fine peaches the second year, but they produced good fruit but two years.

I have planted this year one acre of bearded rice, on rich high land, to be cultivated with the bull-tongue plough, and an half acre in tide swamp, to be cultivated as gold seed with water. It will afford me pleasure to communicate the result, when at maturity. With respect, your obd't servant,

To James Gregory, Esq. Henry Ingraham.

Observations on the Cow-tree of the Caraccas, *by Mr. David Lockhart, Curator of the Botanical Garden in Trinidad.*

I have just returned from an excursion to Caraccas, where I collected the juice of the cow-tree, (Palo de Vaca,) and I have now the pleasure of sending you a phial of the milk, together with a few leaves, and a portion of the root of the tree. The *Palo de Vaca*, is a tree of large dimensions. The one that I procured the juice from, had a trunk of seven feet in diameter, and it was 100 feet from the root to the first branch. The milk was obtained by making a spiral incision into the bark. Carauo, the place where I met with the tree, is about fifty miles east of La Guayra, and at an elevation of from 1000 to 1200 feet above the level of the sea. It is likewise found between Cape Codera and Barcelona. The milk is used by the inhabitants wherever it is known. I drank a pint of it, without experiencing the least inconvenience. In taste and consistence, it much resembles sweet cream, and possesses an agreeable smell. I was so fortunate as to procure some young trees and roots of the *Palo de Vaca*, which I will endeavour to increase; and, if I prove successful, you may expect to have a plant. I am sorry that I was not able to collect any specimens worth sending during my visit to Caraccas, my stay being limited to eight days, six of which were spent in procuring the cow-tree. I, however, picked up a few seeds, which are sown in a mixed state at St. An's, and which are likely to afford something interesting. I am glad to hear that botany goes on prosperously in Europe. I am sorry to say, that, during nine years' residence in this part of the world, I have found very few persons who take an interest in the advancement of science, the principal aim of the people here being to make money in every way they can. For the last eighteen months, from close attendance to the garden, I have had but little time to devote to collecting.

Note by Mr. Don.—I had an opportunity of examining attentively the leaves of the *Palo de Vaca*, and found them to approach very close to those of several South American species of *Ficus*. The disposition of the nerves and veins was precisely similar, which, together with the insertion and consistence of the leaves themselves, appear to justify the propriety of the place assigned to the *Palo de*

Vaca, by Mr. Kunth, who has arranged it in the family of *Urticeæ*, under the name of *Galactodendron utile;* but neither he nor myself have seen either the flower or fruit; so that as a genus, it rests on very insufficient grounds. The tree, however, is evidently related either to *Ficus* or *Brosimum*. The juice contained in the phial sent to Mr. Lambert, had the appearance of sour cream, and, notwithstanding that it had suffered materially from the long voyage, the taste was by no means unpalatable. [*Franklin Journal.*

CURRANT WINE AND FOX GRAPE WINE.

Mr. Skinner: *Lynchburgh, Aug. 14th*, 1829.

I have made currant wine which was so highly esteemed, that I have been offered for it the best Madeira upon equal exchange I fill my casks about three-fourths, that the matter thrown up during the fermentation may not work over; when that process is finished it sinks, and carries down with it whatever would make the liquor turbid, and leaves it more perfectly fine than the addition of any foreign matter could render it. We have here several kinds of both the red and black fox grape, and many hybrids, from their union with the several varieties of the summer and winter grape. We have also the white fox grape.

Respectfully, your obedient servant,
William Owens.

Receipt for Fox Grape Wine.—To every bushel of grapes, add twenty-two quarts of water, wash the fruit and permit it to stand twenty-four hours, then strain, and to every gallon of juice add two pounds of brown sugar; fill the cask about three-fourths, let it stand open for fourteen days, then close the bung.

RURAL ECONOMY.

CIDER MILL AND PRESS.

Specification of a patent for a Moveable Cider Mill and Press. Granted to Moses B. Bliss, *Pittstown, Kennebeck county, Maine, April* 21, 1829.

This improvement consists in combining in one moveable and entire machine, the process of reducing apples to pummage, and of extracting the liquor, by means of a newly constructed vertical wheel for grinding, its combination with other wheels, and the application of these wheels, rack and pinions, for pressing; known by the name of the "Moveable cider mill and press."

The wheel has an axis fastened in its centre, on which it revolves; its periphery is smooth, and its surfaces straight from the centre: on both surfaces are fixed a convenient number of teeth, of steel or iron, projecting horizontally, a proper length to operate on the apples. Over this wheel is a hopper (to retain and conduct the apples) decreasing at right angles with the axis as it descends towards the wheel; on both sides of the wheel, directly over the axis, is a partition, so as to admit the apples to come in contact with either quarter of each side of the wheel. The hopper, together with the wheel, may be placed on the frame of the machine, over a box into which the pummage falls for pressing.

The wheel is to be put in motion by means of a small pulley fixed to its shaft, and a band extending to a horizontal band wheel. On a perpendicular shaft of this wheel is a pinion which mashes into a cog wheel; and a pinion on the shaft of the cog wheel engages with a rack upon the piston. The rack must be disengaged from the pinion by removing a key from behind the piston, when the machine is in operation for grinding, as the piston head forms one end of the box, and must remain stationary when grinding. The power is applied to the shaft of the cog wheel, when a motion is required for grinding, and to the shaft of the band wheel when the pressing is performed; this is done by removing a sweep from one shaft to the other. After the pummage is sufficiently pressed, the bulkhead of the box is removed, and the piston extended to the front of the box, to free it of the pummage. The machine rests on two pair of wheels; one pair being smaller than the other, and adapted to turning, like the forward wheels of a wagon. It may be drawn by cattle by means of a tongue fixed to the axle of the smaller wheels. This mode of obtaining power and motion, and the manner of moving the machine, has nothing peculiar in it.

A particular description of the frame for supporting the machinery, the dimensions of the wheels, &c., and their positions, is deemed unnecessary, because they may be varied according to circumstances. Moses B. Bliss.

Apples Preserved till Late in the Year.

Sir—From the difficulty of preserving apples till late in the year, I was induced to try two methods recommended in *Practical Economy*: both promise to answer so well, and are so simple, that I recommend them to those of your readers who have not proper fruit-rooms. From our apples having been frosted, the jars were opened sooner than I intended; but from the sound state they are in, I have no doubt they would have kept till June. I regret I have not a specimen of those preserved in sand to send; but I forward some of those kept in a vacuum for your inspection.

Directions.—After the apples have been kept for a week, and the superabundant moisture cleared away, wipe them with a dry cloth, and pack them into glazed jars in layers of sand dried in an oven. Fit a piece of wood into the mouth of the jar, and tie a bladder over it. Let the jars stand on a shelf in a room not subject to much change of atmosphere.

Or lay a dry layer of pebbles in the hollow of a glazed jar; fill the jar with apples rubbed dry; fit a piece of wood into the mouth of the jar, cover it with mortar, and place it on a shelf in a dry room.

A Subscriber.

The five apples, received March 26, were as plump and fresh as if newly gathered; they were of handsome shapes; with a good deal of color, and very well flavored. We are not quite certain of their names.—*Conductor of the Gardener's Magazine.*

INTERNAL IMPROVEMENT.

THE ROANOKE COMMERCE.

We feel almost chargeable with neglect of an important duty, towards our neighbours of North Carolina, as well as our own citizens, in not having before noticed the laudable efforts of the *Virginia and North Carolina Transportation Company*, to supply a manifest desideratum in our commercial operations with the Roanoke country, through the Dismal Swamp Canal. It will be recollected that the Newbern, Halifax and other N. C. papers, represented that the steamboat Petersburg drew too much water to admit of her navigating the upper Roanoke, during the dry season; and that it was indispensable to the success of that valuable intercourse, that a boat of lighter draught of water should be placed on that river, without delay, to co-operate with her. Faithful to the important interest confided to them, the Transportation Company, some time since, contracted with Messrs. *Ryan & Gayle*, of this place, for a steamboat well adapted in every respect to that end. Her dimensions to be 80 feet keel, 17½ feet beam, to draw only 30 inches water, and to be elegantly fitted for the accommodation of passengers. This boat, which is now rapidly progressing at the yard of Messrs. Ryan & Gayle, will, we are assured, be a first rate vessel of her kind—her engine, now constructing in Baltimore, is of 25 horse power, on the high pressure principle, and will enable her to tow from two to three of the transportation boats at a time, and from her light draught of water, to navigate the Roanoke at all seasons. So soon as she shall take her place in the line, the communication will be complete:—Co-operating with the Petersburg, which will ply regularly between Elizabeth City and one of the proximate ports to the mouth of the river, (Plymouth or James town,) she will meet her at the appointed place, and continue the run to Weldon. These arrangements being completed, and no time will be lost in their accomplishment, no impediment will exist to the fruition of the great advantages which first prompted this enterprise, destined as we hope and believe, in a few years to restore to Norfolk its former importance in the scale of commerce, and eventually to give her that high rank among the cities of the union, to which her ample capital—her position among the states, her proximity and easy access to the ocean—her unequalled road-stead and capacious harbour, *open at all seasons of the year*, and the rich products of an extensive and fertile back country pouring into her lap, point as unerring assurances.

We trust that our friends of Carolina will see in this new effort an additional pledge of our earnestness to draw still closer the relations of business and friendly intercourse, and that it will beget a corresponding solicitude on their part. [*Norfolk Beacon.*

LADIES' DEPARTMENT.

(From the Georgia Statesman.)

MY WIFE'S INFLUENCE.

Mr. Editor.—For a number of years I have been what is called a *moderate drinker*. I have never been right "*negro drunk*," though I have been pretty "*swipey*," most too "*high for picking cotton*," and just "*so as to go by things.*"—As we live in a free country, I conceived every one hand a right to do as he pleased, the opinion of the parson and the anti-intemperate society to the contrary notwithstanding. My wife, sweet creature, as you know, for she has been frequently in town with me, never would say a word of wrath to me when I *reeled* home; but she would *look* a great deal of pity. Yes, sir, these looks of hers would sometimes draw the tears in profusion from my eyes.

Last summer she mentioned that Capt. —— had quit drinking entirely, because it was undermining his constitution, and the physicians told him he would be "burnt up," in two years more. This affected me; for although I did not apprehend any danger from my *moderate draughts*, yet I thought if I were compelled to abstain from so delicious a beverage, to lengthen my days, it would be worse than the "tooth ache." But I must narrate a little of my history to show her influence in recovering me from my destructive practice, and when my hand gets rid of its trembling I will give you another sketch about it.

The first Monday in November, she rose earlier than usual. When I awoke she was entering the room with a warm dish of coffee; "Husband, said she, with as pleasant a smile as when she first won my heart, the new coffee which you bought is excellent," handing me the cup. I drank it off, and though I had been accustomed to give the dram the preference, yet it sat quite as well on my stomach.

As I came into the other room, she was seating herself at the breakfast table, and observed, "come, the mackerel too, is prime." Who could resist such a sweet smile as she gave me? I had not time to go to my bottle, but I sat down and ate heartily. About

It, I returned from performing some business on the plantation, anticipating the pleasure (a beastly one) of a good dram before dinner, when who should I find but Mrs. P. and Mrs. N. and the young ladies! After the usual compliment, I rose to go to the closet, but thinks I to myself, it will not do for a *gentleman* to be *swigging* down liquor before the ladies, and I knew there was no loaf sugar for toddy; so although my hand was on the latch, I passed into the piazza and took a drink of water. O! I was monstrous dry, inwardly I cursed the company, but soon returned confused, and found the servant handing about lunch. I took a fine northern apple, and soon, even before the girls had conned over the seeds to learn who was to have the first husband, news came that dinner was on the table. I stood, as you know it is polite to follow the ladies, hoping that I could filch a *swig* while they were getting their seats; but as I was turning the key, in jumps Miss G., a flirt of a girl, "my handkerchief, my handkerchief." I hung down my head (for rum had not destroyed all sense of shame in me) and went in to my dinner.

During the afternonn, I was somewhat chagrined, and pouted a little; but when the girls began to play their pranks, and proposed their conundrums for solution, I became quite merry, and forgot my disappointments.

Tuesday morning we were "driving" before day. Many a time while listening to the music of our hounds, my thoughts would go home to my darling closet, and how I would make amends for yesterday by a treble dose before dinner. We had a fruitless chase and I retorned home about 1 o'clock, P. M. hungry and tired. A fine duck was smoking on the table, the steam of which came right up into my nostrils, as I looked upon my jug, but so keen were my demands for hunger, that I was pulled involuntarily into my chair; I ate a hearty meal and felt cheerful. Is it possible, said I to myself that food could satisfy one so completely? I had been under the impression for years that when one was fatigued, whiskey did much good, and like the power of magic, lulled weariness to rest; but I am now convinced that nourishing food is much better.

But I am wearying your patience; suffice it to say that my wife, during the whole week, had so contrived it, without my suspecting her stratagem, to obtrude something in my way, either a lunch or some sweet thing, just before my usual period of drinking, so that I lived six days a sober man. Then she disclosed to me her fearful apprehensions of my growing habit; begged me to look at my emaciated countenance and watch my palsied hand, telling me how she had managed for my good. We shed tears of joy together, and I made a resolution never to drink another drop.—Drinking is but a habit, and may be cured, if we will put it away from our houses and not touch it. I hope other "moderate drinkers," will be blessed with such a "help mate" as is mine. If any one had told me a year ago that I should have so easily given up a practice, which I considered indispensable to happiness, I should have laughed at him as an ignoramus; but now I am convinced. Let others try it for themselves.

Yours, &c. A. N.

THE SWEET BRIAR.

By Brainerd.

Our sweet autumnal western-scented wind
Robs of its odours none so sweet a flower,
In all the blooming waste it left behind,
As that the sweet brier yields it; and the shower
Wets not a rose that buds in beauty's bower
One half so lovely,—yet it grows along
The poor girl's pathway—by the poor man's door.
Such are the simple folks it dwells among;
And humble as the bud, so humble be the song.

I love it, for it takes its untouch'd stand
Not in the vase that sculptors decorate—
Its sweetness all is of my native land,
And e'en its fragrant leaf has not its mate
Among the perfumes which the rich and great
Buy from the odours of the spicy east.
You love *your* flowers and plants--and will you
The little four leaved rose that I love best, [hate
That freshest will awake, and sweetest go to rest?

Chinese Maxims for Women.

"In vain is the females' apartment inaccessible to public view; if irregularity finds its way into it, the news of it spreads far and wide with rapidity; it is a fire, of which those who are not near enough to see the flames, are sure to perceive the smoke."

"Employment is the guardian of female innocence: do not allow women time to be idle; let them be the first dressed and the last undressed the year round."

SPORTING OLIO.

(Items from late English papers.)

On Thursday last, a trial match took place at the Stretford road, between the celebrated American horse Tom Thumb, and a Russian poney, the property of a gentleman of this town. The distance chosen was one mile, from the bridge at Hulme, to the Bull and Punch Bowl, at Throstle Nest. In running the American horse broke into a gallop two or three times, in consequence of which the Russian pony won the match by several yards. The American horse was rode by Mr. Whittenbury, and the Russian pony by Mr. Forth both of this town. After the race Mr. Jackson, the owner of Tom Thumb, offered to back him against his antagonist for £500; but we did not hear whether the offer was accepted.

A case was to come before the Jockey Club this week, which forcibly illustrates the old adage, that "there's many a slip 'twixt the cup and the lip." A horse of Lord Mountcharles's (Rasselas,) named by Mr. Fitzgerald, won the great Somersetshire stakes at Bath, last week, and which was worth near £900. After the race, and not till then, Mr. Day, the owner of Liston, (the second horse) found out that Mr. Fitzgerald was dead, that Rasselas was not entitled to start, and that the stakes must be given up to him. The stewards, as a matter of course, referred the case to the Jockey Club. According to the laws of racing, no horse can start if the party naming him be dead: but it is a question whether Rasselas is disqualified, Mr. Day not having started the objection till after the race. All bets wait the result, and some anxiety is evinced to know, in case the decision is in favour of Day, whether Rasselas must be considered a beaten horse, as not having started. The trainer had backed him to win nearly £500.

Great Rowing Match.—On Saturday week, an amateur rowing match, for 1000 sovereigns, took place on the Thames, from Vauxhall-bridge to Kew bridge. The competitors were Messrs. Osbaldeston, Slater, Cannon, and Bayford, in a four-oared cutter, belonging to the Arrow club, against Capt. Bentick, Lord Chetwynd, Messrs. Dixon and Hobhouse, in the Guards club four-oared cutter. Mr Osbaldeston and his crew, by great exertions of strength, gained the start, and by hard and even pulling managed to keep their advantage the whole distance. On coming in at Kew-bridge, they won the match by several boat lengths. Much money changed hands on the occasion.

MISCELLANEOUS.

COTTON SAIL DUCK.

Copy of a letter from Warren R. Davis, Esq. to the Secretary of the Navy, dated

Washington, Aug. 12, 1829.

I take the liberty, partly based on some personal intimacy, but chiefly as one of the representatives of a neglected portion of this confederacy, of addressing you on a subject that I consider of public interest.

I respectfully request that you will cause an experiment to be made in the naval service of the United States, for the purpose of ascertaining the fitness and utility of cotton as a principal element of sails, rigging, &c. and of its comparative cost, strength, durability, advantages and disadvantages. This request is predicated on information I have received of the results of some partial experiments recently made in the United States' sloop of war, the Boston, lately returned from a South American Atlantic station, and on other facts and experiments in the merchant service. That sails, rigging, &c. of cotton fabric, have been long used in the navigation of the Grecian Archipelago is well known; and the fact that the Austrian as well as the Greek ships in the Levant, are clothed entirely with that material, is amply sufficient to prove that cotton is there used, not as a substitute, but in preference to hemp. Hemp is one of the staple productions of that country, and forms an important item in the list of her exports; cotton is not, but is imported from other countries. I am informed that the superior celerity of the Greek ships, and what are usually called the Baltimore clippers, is attributed, in part, to their use of cotton canvass. It is said to hold wind better, and to make a difference of a mile distance in six. The main-topsail of the Boston, which I understand was mostly used and relied on during the long voyage from which she has just returned, was of cotton canvass; and that experiment was abundantly satisfactory to the officers on board, of its strength, durability and usefulness.

An officer of that ship, of skill, science and the most scrupulous accuracy, has promised me a written statement of the facts referred to, as well, also, of some experiments in the merchant service; these shall be furnished you as soon as received. These facts, together with the certificates subjoined, I hope will be considered sufficient to authorize a full and fair experiment; especially as the cost of an extra set of sails, &c. would be but little, and repay that little by their service. This application is justified not only by its probable important results, but by frequent and recent precedents. The navy department have been repeatedly and pressingly importuned to test the comparative merits of American hemp, sail duck, &c; and in 1828, the naval board of commissioners made a full report on the subject, which was immediately followed by a law imposing the heavy and oppressive duty of $45 per ton on manufactured hemp, until the 30th June, 1829, and $5 per ton, annually, until the duty shall be $60 per ton. A similar call was made in 1827, and responded to in 1828, by the secretary of the treasury, on the culture of silk. If I mistake not, a resolution was adopted by the house of representatives at the last session of congress, directing the secretary of the treasury to digest a plan for supplying the American navy with cordage and canvass of domestic produce and manufacture. The request I make is at least as humble; it is only to an article already within your reach, to test its usefulness and importance.

If the result of the experiment should be, as I most confidently expect, its importance to the nation will be vast indeed. It would increase the demand for almost double the amount of cotton now annually produced in the United States. If successful here, it would be speedily adopted by the navigating interest of other countries, and increase the demand, and open a market for that product to an amount beyond the reach of calculation. Hemp can be profitably cultivated only on a few rich alluvial spots or veins of land, but cotton, (not unequally burthened as it now is) would yield to honest industry, wealth and comfort, from the 36th degree of north latitude to the utmost verge of our southern and southwestern limits. The wealth added to the general stock of national riches by the cultivation of hemp is small indeed according to the treasury reports from 1818 to 1827, inclusive. During the latter year the exports of hemp, canvass and cordage, amounted only to $63,074, but the exports of cotton, during the same year, from seven states only, amounted to $29,359,540; that article alone being of greater value than all other exports of all other states together, and yielding, by the duties imposed upon its returning exchanged value, more than half the revenue of this government. But however advantageous the experiment may prove to a particular section of our country, I admit that it can properly be asked for or expected on the ground alone of national interest.

In the present case the result can be of no local or sectional interest; unless it proves useful and beneficial to the nation. The former will depend upon, and be the consequence alone of the latter.

Its success and future triumph will require no aid from legislation, no exclusive privileges for itself or burthens upon the industry, or encroachments upon the rights of others.

I herewith enclose you a part of the testimony I have received, and have the honor, &c. &c.

Navy Department, Aug. 24th, 1829.

Sir—I have received your communication of the 12th inst. containing your views of the expediency of introducing into our navy the use of cotton canvass.

The testimonials presented by you, from highly respectable sources, of the result of various experiments in the merchant service, added to the trial of a topsail of that material, during the late cruise of the sloop of war Boston, are sufficiently satisfactory to authorize a more extended experiment.

The fitness of this great staple of our country for the manufacture of canvass, suitable for naval purposes, shall, as it deserves, be fully and fairly tested.

I have accordingly, with the approbation of the president, ordered a full suit of sails for the sloop of war Peacock, now fitting for sea, to be made of cotton canvass.

I am, very respectfully, your obedient servant,
Hon. Warren R. Davis. Jno. Branch.

[We omit until next week, a letter from our respected townsman, Major Isaac McKim,—a letter containing those clear and practical views which have characterised his various and extensive enterprises, and caused him to be so often resorted to by public functionaries for information on subjects of revenue and commerce.]

MAMMOTH.

Chambersburg, (Penn.) September 1.

The remains of one of those enormous animals have been just discovered on West Conococheague, by General S. Dunn. In sinking and widening the tail race of his mill, in Path Valley, one of the hands discovered a perfect tooth, about seven feet below the surface of the ground. A part was broken before its nature was observed, but the residue was taken up perfect. The length of the tooth is seven feet and its circumference fourteen inches at the root. About the root a large portion of the jaw bono was found, but the bone was immediately decomposed by tho exposure to the air. The tooth weighs about seventy pounds, and forms a regular curve of about one foot from a straight line. It was found near the head of a large limestone spring which issues from the foot of a knoll, and runs into a meadow, formerly, no doubt, a marsh, occasionally overflowed by the creek. Other bones were discovered, but they all crumbled immediately on exposure to the air. The enamel or outer coat of the tooth was very firm, and difficult to break with a pick; the inner part had become in some degree softened, but presents a beautiful whiteness. The Path Valley is bounded on the East by the Kittetinning, and on the West by the Tuscarora mountains; at this place the valley is about two miles wide. This is the first evidence we have that this mighty race, so long extinct as not even to be mentioned in history, and whose remains have been discovered in various parts of the world, has once inhabited the valleys of Conococheague,—

"Has fed on our lawns, and in our forests ranged."

A perfect part of the tooth is now in possession of T. G. McCulloh, Esq. of Chambersburg.

[*Franklin Repository.*

Paterson, N. J. Below we present an interesting statistical view of this flourishing village, which has grown up with astonishing rapidity; in 1808 its population was abuut 300; in 1820, 1837.

A general statistical view of the manufacturing establishments, machine shops. &c. in Paterson, New Jersey, July 4, 1829.

One mill-right and machine shop, including a blacksmith shop, which employs 18 hands.

Three other machine factories, employing 146 hands, where cotton machinery of different descriptions is made, which is said, by competent judges, to be superior to any other manufactured in America. In one of these, that of Godwin, Rogers & Co. were manufactured the last year, 15.048 spindles; together with all the necessary preparations, which, at 12 dollars the spindle, amounts to $180,576. Connected with this establishment is an iron and brass foundry, which produces annually 1,020,000 lbs. iron and 35,000 lbs. of brass castings. This foundry employs 26 hands.

There is one rolling and slitting mill and nail factory, employing 23 hands, and producing annually 672,000 lbs. of nails.

There are 17 cotton factories and 32,029 spindles; 14 of these cotton factories are in operation and employ 28,679 spindles. The raw cotton consumed in these factories annually is 2,179,600 lbs. Yarn made annually is 1,914,450 lbs. Medium cost of cotton, $223,501.—There are manufactured in Paterson 150,000 yards of cotton duck, and 1,861,450 yards of other descriptions of cotton cloth annually. The cotton yarn, not made into cloth, amounting to 1,192,400 lbs. is sent from Paterson, principally to New York and Philadelphia. There are in operation in the factories 266 power looms and 26 hand looms. In the town there are employed 195 hand looms—making 487 power and hand looms in operation in the place.

The Phenix manufacturing company, engaged in making duck, employ 1,816 spindles. They consume annually 600,000 lbs. of flax and manufacture 450,000 yards of duck and 143,000 yards of bagging. This establishment employs 395 hands.

Total cotton and flax spindles in Paterson, 33,645; total employed, 30,295.

Total hands employed in the factories, machine shops and other establishments 1,879. A large proportion of these hands are children.

Total cotton and flax consumed annually, 2,779,600 lbs.

Total duck and cloth of all descriptions manufactured annually, 2,604,450 yards.

There are in Paterson 132 widows, the number of whose families is 667. A large portion of these, were it not for the manufacturing establishments would be dependent either on their friends or the public for their support. [*Paterson Intel.*

THE FARMER.

Baltimore, Friday, September 11, 1829.

Turkey Tobacco Seed.

J. S. Skinner, Esq. *Philadelphia, Sept. 4, 1829.*

Sir,—At the request of Mr. J. N. Hambleton, I have sent to your care a quantity of Turkey Tobacco Seed. It is of the very best quality, and was collected with much care by Lieut. Vallette, of the navy, while at Smyrna. As there is more than Mr. H. will want, be pleased to accept of a portion of it, and give it to your friends, should any of them feel disposed to make trial of its culture.

☞ Notice.—The Muskingum Agricultural and Manufacturing Society, wishing to purchase a stallion of the best blood, form and qualities, for which *one thousand dollars* or more will be given, offer *fifty dollars* as a premium for the best animal of this description which shall be exhibited on the first day of their next annual exhibition. which will commence at this place on the 1st Wednesday in October next; provided the horse is, in the opinion of the committee on horses, such as shall merit patronage. Satisfactory evidence will be required of his pedigree, &c. George James, *Sec'ry,*
M. A. & M. S.

Zanesville, Ohio, Aug. 29, 1829.

P. S. Editors of newspapers in the adjoining states will oblige the Society by inserting the above notice as often as convenient.

Latest Foreign News.

By the Columbia at New York, intelligence to the 1st of August has been received from England. There is no news of importance.

The Crops in England.—The crops appear every where to be promising, and the barns and granaries are pretty well cleared. We extract the following paragraphs from the provincial papers:—

A week of fine hot weather has nearly completed our hay harvest. On good lands the harvest has proved abundant, but the poorer meadows are very light. The wheat is very promising, and barley and oats look well. Potatoes and turnips will prove abundant.—Fruit of all kinds is in great profusion, as well as beans, peas, and every kind of vegetable.

[*Macclesfield Courier.*

Harvest has partially commenced in this neighbourhood, and if the weather prove favourable, will become general, in the course of the ensuing week. The crops of wheat, in particular, are very abundant. [*Cambridge Chron.*

If we are favoured with fine weather, the reaping hook will be in active operation throughout the country, in the course of next week. [*Devizes Gaz.*

The harvest has partially commenced in this neighbourhood. On Thursday last a field of wheat belonging to Mr. Pike, of Anthony, was cut, in excellent condition; and on Monday several farmers in the parishes of Beer, Ferris and Tamerton, began. The wheat is considered an average crop, but oats and barley under. The late rains have been of great service to the grass. In many places where the hay harvest was considered a complete failure, previous to the rain coming on, excellent swathes have been cut down. [*Plymouth Jour.*

The crops, we are glad to say, bear a most charming aspect in the surrounding country.

[*Limerick Ev. Post.*

A gentleman who has, within the last fourteen days, travelled through parts of Cheshire, Derbyshire, Yorkshire, Westmoreland and Cumberland, states the appearance of the crops to be luxuriant, and nothing seems wanting to insure an abundant harvest, but settled weather. The grass crop is abundant in all these districts. [*Manches. Her.*

The Weather and the Crops.—We are enabled, from personal observation, and inquiry at various places, during the last week, to report the real state of the growing crops for a considerable distance south of this place. And, first, a strict regard to truth compels us to say, that the harvest for all kinds of grain will be a late one. We are on the verge of August, and yet not a single sheaf of any kind of corn has been cut; nor, even with a fortnight of fine dry weather, will any be ready for the sickle, while it will take a longer time, should rain prevail, to ripen the most forward.

Up to yesterday, the weather was very favorable for the corn crops. To-day much rain has fallen. In the west of England, and in some other early districts, barley cutting has already commenced: in our own neighbourhood, rye has been cut, and barley will be very soon ready for the scythe. The wheat is rapidly turning colour, and should the present weather be favorable, the harvest will commence in ten days or a fortnight. On Saturday a field of wheat was cut near Bath. Much hay and clover were spoiled by the late rains; but the loss will be in some degree compensated by the very fine aftermath.

[*Worcester Journal.*

A Paris paper says: "It seems that the sum of 175,000,000 of francs, which has been offered to the Spanish Government for the conquest of Mexico, would be produced by a loan, to be made by the ancient possessors of that country, who have been expelled from it.

Portugal.—The accounts from this oppressed country are of the same painful nature as before—arrests and imprisonments continue to take place. A degree of dissension, however, has occurred among the troops at St. Michael's, which may perhaps tend to something good. There have been timely arrivals at Terceira, which will strengthen the Constitutionalists.

St. Petersburg, July 15.—The day before yesterday, the birth-day of her Majesty, the general pleasure was greatly heightened by the arrival of the news of the taking of Silistria. At the same time with this welcome intelligence, news arrived from Tiflis of a new victory gained on the 14th ult. by the united detachments of Major Generals Murawisco and Burzow, over large bodies of the Turks who had assembled in the defile of Poztow. The enemy lost their rich camp, which was taken by storm, a large quantity of ammunition and provisions, 400 prisoners, five standards, and all their artillery. The Turks, whose force amounted to 15,000 men, lost 1,200 in killed and wounded—our loss is small. The details of this action are not known. Count Paskewistch was still at Kars, but was preparing to attack the Seraskier himself, who with an army of 50,000 men is about 60 wersts (40 miles) from that fortress.

"Liverpool, July 31st.

Cotton U. States goes off at the following rates, in bond: Uplands 5¾ a 6¼d; Alabama and Mobile 5¾ a 6 1 8d. A public sale of East India Cotton took place this week, comprised of 10,500 bales of which only 4050 bales were sold, the rest bought in; Bengal obtained 3 1-8d; Surat 3 a 4 3-8d. The Corn market is still heavy—purchasers are cautious, and prices declining. The weather has been warm for some time, which improves the Wheat, and if we are free from a rain during the harvest, we may expect an abundant crop. The present price of American Flour, duty paid, is 34s a 38s. The aggregate average for the last six weeks is 67s 8 per qr. which makes the duty now 18s8 per qr. wheat, and 11s3 per bbl. Flour."

London Markets, July 30.

Corn Exchange.—We have a dull market and no alteration in prices of any description.

Prices Current in Boston, September 4.

Apples, best, bbl. —— a ——. *Beans*, white, bushel .90 a 1.00. *Beef*, mess, bbl. 10.50 a 11.00; cargo No. 1, 9.50 a 10.00; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .14 a .16. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 6.00 a 6.25; Genesee, 5.75 a 6.00; Rye, best, 3.50 a 3.75. *Grain*, Corn, bu. .60 a 62; Rye, .63 a .65; Barley .67; Oats .42 a .45. *Hogs'-Lard*, 1st sort, new, lb. .9. *Pork*, clear, bbl, 16.00 a 17.00; Navy, mess, 13.00 a 13.50; Cargo, No. 1. 13.00 a 13.50. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool*, Merino, full blood, washed, .32 a .45; do. do. unwashed, .18 a .22; do. three-fourths, washed, .28 *a* .32, do. half blood, .24 *a* .28; do. quarter, washed, .22 *a* .24; Native, washed .20 a .23; Pulled, Lambs', 1st sort, .34 a 36; do. 2d sort, .22 a .25; do. spinning, 1st sort, 27 a .30.

Prices Current in Philadelphia, September 8.

Bees-wax, yellow .22 a .23; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10.50 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .7½ a .8, No. 2, .5 a .6; *Cotton*, New Orleans .10 a .12, Upland 9. a .10, Tennessee 9. a .10, Alabama 9. a 10; *Feathers*, South. .32 a .34, West. .32 a .34; *Flax* .7½ a .8. *Flour*, sup. 5.50; fine, 5.00 a 5.25; Rye 3.50 a ——; Cornmeal, hds. 11.50 a ——, bls. —— a 2.12½; *Flaxseed*, cask —— a ——; bu. 1.12½; *Grain*, Wheat 1.05 a 1.10; Rye .50 a .60, Corn l. c. white, .46 a .47, l. c. yellow, .48 a .49, u. c. round, .52 a .54; Oats .25 a .30, Barley, Pa. .— a .—; do. East. .55 a .60; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia .6 a .9, Western .8 a .8½; *Hemp*, 200 a 210; *Lard*, .6 a .6; *Oil*, linseed, .68 *a* 69; *Pork*, mess, 13.25 a 13.50, prime 11.50 a —, cargo 10.50 a 11.00; *Rice*, 2.50 a 2.87½; *Tobacco*, Kentucky .4 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .26 a .28, half blood 28. a .31, three quarters blood .31 a .32, full blood .34 a .38; unwashed, generally 10 cents less, according to quality.

JONATHAN S. EASTMAN,

Has now on hand and is constantly supplied (at his Agricultural, Horticultural, and Seed Establishment, No. 36, west Pratt street, Baltimore,) with WHEAT FANS of the most approved kinds, made of the best materials, and by good worknem; also, Cylindrical Straw Cutters, of which he is patentee, they are adapted to every kind of long forage, and surpassed by no other machine for the same purpose in any country. Likewise, a full assortment of Gideon Davis' highly improved Patent Ploughs,—the advertiser has recently made some improvement on the Shares of this Plough, which he trusts will be found an important advantage.

Also, Clezy's improved Scotch Plough, and improved Bar Share and Coulter Ploughs, of large size, Cultivators, Patent Corn Shellers, Dutch Cutting Boxes, Brown's Vertical Wool Spinner, Cast Steel Axes, superior Oil Stones, &c. &c.

Likewise, a general assortment of the Messrs. Landreths' Garden Seeds, warranted fresh and good, and at the same prices they are sold for at their store in Philadelphia. Orders will be received for Green House Plants and Bulbous Roots, from the Messrs. Landreth's splendid collection delivered here in good order, at the Philadelphia prices.

Also, Fruit and Ornamental Trees. On hand a good supply of Orchard Grass and Clover Seeds, both warranted of good quality.

P. S. Agents for the above, where gentlemen can leave their orders.

Messrs. Jona. Alden. Philadelphia.
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J. C & C. Burckmyer, Charleston.
Dr. W. W. Anderson, Statesburg, S. C.
J. G Herbert, Savannah, Geo.
Stephen Duncan, Esq. Natchez, Miss.

ALMANAC.

1829. September.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 12	5	46	6	14	12	28	4	47
Sunday,........ 13	5	48	6	12	12	24	rises	
Monday,....... 14	5	49	6	11	12	22	7	17
Tuesday,...... 15	5	50	6	10	12	20	7	56
Wednesday,.. 16	5	51	6	9	12	18	8	39
Thursday,.... 17	5	53	6	7	12	14	9	25
Friday,......... 18	5	54	6	6	12	12	10	14

Full Moon, 13th, 1 h. 22 m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There is no change in the price of flour since our last—the wagon price of Howard street continues at $5.25. Wheat is in demand at our quotations; corn is dull. Oats are scarce, and the price advanced considerably. *Live Stock.*—Beef on the hoof is not very brisk at our quotations.

Tobacco.—Maryland, ground leaf, $5.00 *a* 10.00—seconds, ordinary, 4.00 *a* 5.00—red, 4.00 *a* 6.00—fine red, 7.00 *a* 8.00, for wrapping 5.00 *a* 10.00—Ohio, common, —— *a* ——.—good red —— *a* ——.—fine yellow —— *a* ——.—Rappahannock, 3.00 *a* 3.50—Kentucky, fine 4.00 *a* 5.00—wrapping, 4.50 *a* 7.00.

Flour—best white wheat family, $6.25 *a* 6.75*—superfine Howard st. 5.37 *a* 5.50; city mills, 5.00 *a* 5.25 Susquehanna, ——. Corn Meal, bbl. 2.37½—Grain, best red wheat, new 1.00 *a* .—;—best white do. new 1.06 *a* 1.10; ord. to good, .90 *a* .95—Corn, white, .— *a* .42, yel. .40 *a* .42—Rye, —. *a* .45—Oats, .— *a* .29—Beans, 1.10 *a* 1.15—Peas, .60 *a* .65—Clover seed, 3.25 *a* 3.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—Barley, .45 *a* .50—Flaxseed, .75—Cotton, Virg. .9½ *a* .10—Lou. .11 *a* .12—Alab. .9 *a* .10—Mississippi .10 *a* .12—North Carolina, .8 *a* .9—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .21½—in bbls. .22 *a* 24½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* ——; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, —— *a* 5.50—Herrings, No. 1, bbl. 3.75 *a* 4.00; No. 2, 3 50 *a* 3.75—Mackerel, No. 1, 6.50; No. 2, 6.00; No. 3, 4.50—Bacon, hams, Baltimore cured, .9 *a* .10; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .30—Plaster Paris, cargo price per ton, $3.50, ground, 1.25 bbl.—Prime Beef on the hoof, $4.75 *a* $5.25.

* Six dollars and seventy-five cents by the single barrel, for Ellicotts' Patapsco white wheat family flour.

CONTENTS OF THIS NUMBER.

Common Sugar; its History, mode of Extracting from the Cane, Claying, making into Loaf, &c.—Consumption of Sugar in the United States—Quantity of Sugar and Molasses made in the state of Louisiana—Description and Cut of a new Manuring Wagon, invented by James Bowman, Esq.—On the Culture of Wheat—On the Cultivation of the Peach—Specification of a Patent for a Moveable Cider Mill and Press—Apples preserved till late in the year—The Roanoke Commerce—My Wife's Influence—*Poetry*, The Sweet Briar, by Brainerd—Chinese Maxims for Women—Sporting Items from late English papers—Cotton Sail Duck, copy of a letter from Warren R. Davis, Esq. to the Secretary of the Navy, with his Answer—Bones of a Mammoth, found in Pennsylvania—Manufactories in Paterson, New Jersey—Editorial; Turkey Tobacco Seed—Latest Foreign News—Advertisement—Prices in the Boston, Philadelphia and Baltimore Markets—Almanac for the week.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets, where every description of Book and Job Printing is handsomely executed.

AGRICULTURE.

A NEW TREATISE UPON WOOL AND SHEEP.

Translated from the French by the Editor of the American Farmer.

(Continued from page 186.)

Chapter III.

Of Merino Wools as they appear on the Sheep.

Having, in the preceding chapter, acknowledged our inadequacy to treat in detail of the *common* and *mongrel wools*, in consequence of their prodigious varieties, we turned our attention more particularly to the classification of the different qualities of *merino wools*, and laid down the discriminating characters by which they were to be known. The study of these wools will continue to form the subject of the two last chapters of this first part of our treatise; and we will go on applying the name of merino wool to all sorts of fine and superfine wools. If, amidst the facts which we shall have observed, and the conclusions we draw from them, there be any thing applicable to the wools of other growths, we leave it to the reader to make out the analogies.

In this third chapter, which we shall divide into three sections, our object will be to avoid, as much as possible, repetitions; and at the same time, to complete what we have already said respecting the growth of the merino wools.

In the first section we shall treat of the fleece of the *adult sheep*; in the second, of that of the *lamb*; and in the third, of the *shearing of the wool.*

Section 1.

Of the Fleece of the Adult Sheep.

The examination of the fleece of the adult merino will furnish us with many important observations; 1st, as regards the quality of the wool on the different parts of the body, and its general aspect; 2dly, The degree of uniformity of which it is susceptible in these several parts; 3dly, the opinion which may be passed upon the probable quality of any sort of wool at the sight of its *second growth* after shearing; 4thly, the weight of the fleece, and its produce.

Of the quality of the wool in the different parts of the body, and of its general aspect.

If a ram or merino ewe, the wool of which is not as perfect in respect to uniformity as it might be, be examined, we shall find that generally the middle and inferior portions of the sides, the shoulders, and the flanks, furnish the best wool, both as to fineness and the uniformity of the fibre. These parts, exposed to the contact of the litter, are not exempt from the inconveniences which thence arise; so that they rarely present that niceness and show which is remarked of the wool on the *back*, the *neck*, and the *rump*. Towards the lower parts of the shoulder and sides, the wool is perceived to be commonly compressed by the animal lying upon it; it appears not so long, although the locks are not displaced or crushed, as is the case with those of the belly. The wool on the loins, and that on the spine of the back, are distinguished from each other by a difference in fineness to the advantage of the latter; but both are inferior to that which we have remarked to exist in the shoulder and flanks, and in order that they may bear being assorted together, they must have been greatly improved by the effect of crossing, or that the animal be of so inferior a breed, that there can no longer be made any distinction between all the upper portions of its fleece. The wool of the spine of the back and that of the loins, generally lose their quality from the withers to the croup. At this latter part it is very inferior, and goes on deteriorating to the tail, the improving of which is attended with the greatest difficulty.

In the above review, we have remarked no other change of character in the wool, but such as ordinarily accompanies a diminution of fineness; but, if we descend from the croup or rump, to the thigh viewed externally, we will find on the upper part a flat wool which seems longer than that of any other part; this is owing to the animal usually resting upon this part. The wool growing immediately below the *ischion* is evidently the coarsest, but it improves as it approaches to the middle of the thigh. As to the posterior edge of the thigh, although so considered by many persons, it does not afford the worst wools; the fleece is generally stained by the urine, but its character is more marked than in that of the belly. Here, the wool is completely compressed, the locks are no longer distinct, and the fibres are more or less *felted;* the moisture of the urine and excrements have altered its colour, and sometimes even, as we had occasion to state before, its very substance. From the belly to the breast, the wool varies from the shortest to the longest; that of the breast may be classed with that of the rump as regards fineness. The wool of the under part of the neck is of somewhat superior fineness to that of the breast, and nearly equal to that of the loins; the lock is not so long as that of the breast, when there is a total absence of the *dewlap;* should this exist, however, in any degree, the lock is at first longer and coarser: if the dewlap be fully developed, the wool is shorter and its fibre becomes still coarser, so as to afford only the most common sort.

The same may be said of that sort of wool which is found on those singular conduplications which, in some individuals, disfigure the merino breed. It is by excess of nourishment and the selection of very fat rams, that these conduplications have become peculiar, in some folds, to certain races, and which have after several generations, extended from the nape and upper part of the neck to the whole of the body. Is it not singular that animals with thick and hard lumps of skin upon their rumps, their sides and necks, and more resembling rhinoceroses than sheep, should have been deemed worthy of being extolled?

From the lower part of the neck to the nape, we find a wool pretty much like that on the loins, and which becomes longer and flatter as we approach to the nape: the wool on this latter portion is generally remarkable for its whiteness and the little grease by which it is surrounded.

As to the wool that grows on the cheeks, the tufts, and the legs, it is generally thrown into the remains of the *triage* or pickings: that of the cheek, however, may sometimes be assorted with that in the neighbourhood of the tail. But we may remark, that animals bearing superfine wools have generally but very little wool in these parts, except during the first and second years of their growth.

There are some parts of the sheep that are particularly susceptible of producing the *jarre*, or *poils de culottes.* With the exception of the location of the tufts, where scars have been made by the butting of rams, the *jarre* is seldom ever found *implanted in the skin.* Sometimes, however, it so appears on the outside edge of the thigh: we have seen it in this place on a narrow line of from one to two inches, and on first rate animals, particularly on a Saxon ram of pure blood, belonging to the sheepfold of the agricultural institutes of Hohenheim, in Wirtemberg. The fleece of this animal, however, did not afford a greater number of the detached hairs than is ordinarily observed in superfine fleeces.

As the breed is improved the number of the hairs in the *jarre* sensibly diminishes; though in vain would we attempt to make it disappear entirely, and those parts from which it will be removed with the greatest difficulty, will always be found to be the coarsest of the fleece, and, though an exception to this rule, from the nape, which does not usually afford the coarsest wool.

As to the *poil de culotte,* it always indicates (inasmuch as it is found in different parts of the body,) a very limited degree of improvement; and it frequently betrays impurity of the breed. By improving it is first driven out of the body of the fleece, and lastly from the *culotte,* (rump) from which it derives its name: sometimes even it is got rid of; for it must not be confounded with a certain sort of long and more transparent hairs, that sometimes appear in small numbers on the nape of merinos, even of *superfine* race, and which seem to hold a middle rank between the *jarre* and the *poil de culotte.*

Let us now examine the appearance of the fleece. Many persons think they can discover by the external aspect of the fleece, sufficient evidence by which to judge of the blood of an animal; we will not deny that an experienced eye may discover something in these indications; but they are frequently fallacious, and it may not be useless to point out the errors into which we are liable to fall by relying too much upon them.

The fleece may present, on its surface, locks that are either *flat,* or *flat* and *knotty,* or sometimes *pointed.* In the first case, it is said to be *round* and *even;* in the second, that it is *knotty;* and in the third, that it is *irregular* or *in pointed locks.*

The *round* and *smooth* fleece is that the locks of which are all of the same length, and exhibit on the surface a close and uniform appearance, which is lost only when the sheep moves or turns about. This sort of fleece is called by the Germans *closed fleece,* and is much esteemed. As for us we are far from attaching to it the same degree of esteem; this appearance, it is true, seems to be the result of a pretty considerable degree of uniformity, in the growth of the lock, in the length and equality of its fibres and their parallelism, and in these respects may form a good character; but, on one hand, this same appearance may, to a greater extent, be the effect of the coarseness and rigidity of the fibres in a fleece of inferior quality; and, on the other hand we have very seldom, and only as an exception, found the round and closed fleeces to afford superfine wools. No doubt, that a superfine fleece would be the better were it to present on its surface this smooth appearance; as then it would be an indication of great regularity in its growth; but it must never be preferred but as an additional character to fleeces of equal quality: and care must be had not to decide too confidently of the merits of a fleece upon this appearance alone. However, before we quit this subject, we would remark, that to a certain extent, a round and smooth fleece may be judged by the fact that it does not, when superfine, open so easily as a coarse one; and moreover offers less resistance to the hand when pressed upon.

The *knotty* fleece is that, the locks of which present at their extremities small knots, sometimes so closely united that they cannot be untied even in the beating and washing operations. This peculiarity in the extremity of the lock is seldom found in any other but the superfine fleeces, and in those sheep folds in which the greatest attention is paid to cleanliness. It is, in fact, easy to imagine that very slender and very elastic fibres will naturally be more liable to become entangled than coarser ones. It has been remarked that such knots are more abundant on the uppermost portions of the animal's body; that is, on those that are less in contact with the litter.

The knot at the end of the lock takes on two different appearances:

In the first, the fibres have a parallel direction; but some are longer than others, or have become detached from the lock on the surface of the fleece. If they have not been supported by the dung, they have been left free to obey the effects of their elasticity and suppleness, and that of their mutual affinities, and they have become entangled; but in this case, the knot is not tight and the fibre is seldom unequal.

In the second place, it is remarked that the extremities of the locks themselves have become spirally twisted, and the knot at the end is often tighter than in the preceding case; the fibre is likewise oftener unequal.

The *knotty* character of a fleece may be observed, *on the same individual*, one year and not the following. We believe it hereditary only in this respect, that it usually is an accompaniment of superfineness, and that the superfineness which sheep inherit predisposes to this defect. A proof of this seems to be, that those descendants that remain far behind their sires in fineness, are free from it.

No doubt this knotting of the end of the lock is a defect which it would be desirable to remove; but it is, nevertheless, proper to guard against the prejudice which some persons entertain with regard to it. The Jews, who, in Germany, are the brokers of this commodity, have constantly exaggerated this defect in the eyes of the grower, with a view of making it a motive to depreciate the wools of first quality; but the truth is, this defect seldom presents any serious obstacle to the success of the manufacturer. Besides, as a disadvantage, it is always compensated by other accompanying precious qualities, so that little importance should be attached to it. It might, moreover, be remedied, if necessary, by a moderate clipping (*émé-chage.*)

The *pointed* fleece has very much the appearance of that of the lamb eighteen months old, which has been sheared the first year; the locks, though pretty equal in length, are, exteriorly, very distinct and independent of each other. This appearance of the fleece, affords much less, than in the two preceding cases, indications by which, at sight, an opinion can be formed of the quality of a merino; we shall not therefore dwell upon it.

Some observers pretend also to be able to judge of the quality of the fleece by its external colour; experienced writers have asserted that the fineness was in proportion to its shade of black; but all this we must be allowed to contradict. The colour of the fleece, it appears to us, depends altogether upon its cleanliness and the quantity of grease which surrounds it; it is blacker in proportion to the greasy nature of the animal; to the less frequent change of their litter; to the smallness of the space allowed them in the fold; and finally to the more moist condition of the soil of the fold. Now, all these circumstances may be attached to the most indifferent as well as to the finest flocks; besides, it is not the finest animals that are the most greasy; sometimes, it is directly the contrary.

Somtimes, the wool, in the midst of the fleece, has more or less of a deep shade of yellow; at other times it is perfectly white, this, no doubt, is the effect of the colour of the grease itself. We have studied to discover if there were any well established relations, between these different shades and the quality of the wool, but we have not been able to detect any. It is very certain, that each animal, even the purest and most undeviating races, is born with a *white* or *yellow* grease; and this natural condition seldom varies in the same individual. However, all the different sorts of merino wools present either one or the other of these shades, and we cannot say which, *cæteris paribus*, is preferable, because by fulling they are all brought to the same degree of whiteness. On a former occasion we showed that the yellow colour was a bad sign only when produced by the urine and dung.

Hanging dewlaps, and an abundance of wool on the cheeks, and all the way down the legs, were, unfortunately, for too long a time considered in France as affording characters that were anxiously sought after by the growers; it may be, that even now, there are some proprietors who boast of the efforts they have made to propagate it in their flocks; they will not long remain in their error, and these characters together with all those that accompany great size and excess of fat, will be generally looked upon as almost certain marks of a middling quality of wool.

Before concluding our remarks upon the external appearance of the fleece, we will say a word or two in explanation of what is to be understood by the *tassé*, properly speaking. *It is the reunion of the greatest number of fibres of the wool growing upon any given spot of the animal's skin.*

From this definition, we think we may assert that a superfine fleece will incontestibly be more *tassé*, than a fleece of middling fineness—since it follows as a matter of course, that upon the same given space there will grow a greater number of fine than of coarse fibres.

But if by *tassé* be understood the union of fibres that afford at the same time the greatest bulk and the most compactness, then it must be admitted that superfineness is incompatible with the *tassé;* for never can a superfine fleece be as compact and bulky as one of inferior wool.

If, therefore, we do not confound the *tassé*, properly speaking, with the *appearance of the tassé*, it may be concluded that the latter almost always indicates a low degree of fineness, whereas, the *tassé properly speaking* never occurs but on superfine animals.

(To be continued.)

CHANGES IN DOMESTIC ANIMALS.

INSTITUTE OF FRANCE—ACADEMY OF SCIENCES.

On the changes which take place among domestic animals transported from Europe to America. Mon. Rolin read a memoir on the above subject.

The observations presented by the author were made during a sojourn of six years in Colombia, and collected in New Grenada, and in a part of Venezuela, from the 3d to the 10th degree of north latitude, and from the 70th to the 80th degree of east longitude. Though this space was rather limited, it offered a field very favourable for observation, being traversed through all its extent by the grand Cordilleras of the Andes, divided in that part in three chains, so that one can study at some leagues distance the living animals of the same species; the one in a middle temperature of ten degrees centimetres, and the other in a temperature of 30. Has not the establishment of animals transported in these regions been accompanied by any remarkable phenomenon? Once naturalized, have they remained such as they were in Europe? and if they have undergone some durable change, may it not cast some light upon that which they have at first experienced in passing from a savage to the domestic condition?

Such are the questions which naturally present themselves, and for the solution of which the author adduces a great number of observations relative to animals of different species.

Mammiferous.—The mammiferous animals transported from the old to the new world, are, the hog, the sheep, the goat, the ass, the horse, the cow, and the dog. They have now become on the new continent, more numerous than all the large indigenous quadrupeds of that region.

The hog, when raised in the warm valleys, where he wanders always in the woods seeking wild fruits, which at certain seasons compose all his nourishment, has lost almost all the marks of domesticity—He has by more than half reassumed the character of the wild boar.

It was to the island of St. Domingo that the first hogs were taken, in the year 1493—one year after the discovery of America.

In the following years they were carried successively to all the places where the Spaniards contemplated settling; and in half a century we find them from the 25th degree of N. lat. to 45 degrees S. lat. In no part do they seem to suffer from the change of climate, and from the first they were reproduced with the same facility as in Europe.

The establishment of large cattle offered more difficulties—these, however, were conquered by the admirable perseverance of the first colonists. The island of St. Domingo, where these animals were immediately carried became a kind of nursery, where they multiplied prodigiously, and from whence they were taken to different parts of Terra Firma, the coast of Mexico, and to the interior. Oviedo informs us, that notwithstanding these numerous exportations, herds of 4,000 beasts were common in the island, only twenty-seven years after its discovery. There were even herds of 8,000 beasts, and according to Acosta, in 1587 the exportation of hides from St. Domingo only, was 35,444. In the same year there was shipped from the ports of New Grenada 64,350—this was the 65th year after the taking of Mexico, before which the Spaniards could only occupy it in a state of war.

After the animals multiplied, and were not kept exclusively about the houses, it was found necessary and even indispensable that a certain quantity of salt should be put in their food, and that if they did not find it in the plants, the water, or in certain brackish earths, which abound in many countries, they became poor, the females were less fruitful, and the herd diminished rapidly. Even in places where animals find sufficient salt, it is of advantage to give it to them; it is a means of habituating them promptly to gather at a certain hour at theplace where they are accustomed to meet, and where they know they will find salt. If this be neglected they will disperse rapidly and become wild.

In Europe, where milk is an important article of product, from large (or black) cattle, they generally milk the cow from the moment she becomes fruitful, till she ceases to be so. This practice constantly exercised on every one for many generations has produced alterations in the species: the udders have acquired an immense size, and the milk continues to flow even when the calf is taken from the dam; thus showing how animals as well as vegetables are improved by domestication and culture. In Colombia a number of circumstances useless to mention, have contributed to interrupt this practice—and only a few generations have passed since the organization, left at liberty, has assumed its original type. In Colombia for a cow to produce milk it is necessary that the calf should suck her all day: they are only separated at night, and the milk then accumulated is only then taken from her. When the calf ceases to suck she produces no more milk.

The ass, in the provinces where Mr. Rolin has had occasion to observe it, has undergone but slight changes in his form and habits. In certain places where little care is taken of them, or where they are overworked, they are often foaled deformed. In none of the provinces visited by the author have they returned to the wild state.

It is not the same with the horse. he is found wild in many parts of Colombia. From a state of freedom there begins to appear among these animals a constancy of colour. The chestnut bay is not only the reigning colour, but almost the only one.

The gait preferred for domestic saddle horses is the amble and "*pas relevé*," (rack,) and they are successfully taught both. While under the saddle they are never permitted to go any other gait. After a time the horse contracts, habitually, the strangles (*engorgemens;* then if they are of a fine form they are turned out as stallions; but very few of them are castrated. It is remarkable that from hence comes a race in which the amble among the adults is as natural as the trot among our horses. Natural pacers are then called *aguilillas.*

Dogs were carried to America the second voyage of Columbus: it is to be remarked that they had in their first battle against the Indians of St. Domingo a pack of twenty blood hounds. They were onployed afterwards in the conquest of the different parts of Terra Firma, and particularly in Mexico and New Grenada. Their race is preserved without apparent change in the plains of Santa Fe, and are used for chasing deer. They display great ardour, and use the same mode of attack which rendered them formerly so terrible to the aborigenes. This consists in seizing the animal by the belly (*bas ventre,*) and turning him over by a quick movement of the head, by availing of the moment when the weight of the body is on the fore legs. The weight of the deer thus thrown is often six times greater than that of the dog.

Certain dogs of unmixed race, inherit, without having been taught, the instinct necessary to chase the *pecari*, in which they are employed. The breaking of these dogs consists in moderating their ardour, not allowing them to attach themselves to any particular animal, and to have the pack under command without suffering them to run about. Among these dogs some are seen which attack their prey advantageously the first time they are carried into the woods; a dog of another race rushes on headlong, and whatever may be his strength, is devoured in a moment.

The sheep transported to America is not the merinos, but of two species, called the "*lana bosta y burde.*"

The sheep propagates well in temperate climates, and shows no tendency to stray from the dominion of man. In the burning climate of the plains it subsists with difficulty, but there its existence gives place to a phenomenon extremely curious. The wool of the lamb grows nearly the same as in temperate climates, though somewhat slower. At shearing time the wool is not remarkable for fineness; it begins again to grow as in a temperate climate; but in a warm climate if the shearing season passes without the animal being despoiled of his fleece, the wool grows thick like felt, and finishes by coming off in tufts, and leaves under it not young wool or a naked and diseased place, but short hair well set, brilliant, and resembling that of the goat in the same climates. On the parts where hair once appears wool never grows again.

The goat, though its figure is altogether that of a mountain animal, accommodates itself much better to the low and burning valleys than on the elevated parts of the Cordilleras. Being no longer milked so often, the goat does not preserve the enormous udder which renders it so remarkable among us; and there is observed in it a change analogous to that which we have noticed in the cow.

Birds.—Among birds the changes have been less manifest; the hens in the adult state are very little different from those of Europe. But in cold countries the mode of development presents, among the acclimated species, a remarkable anomaly. The chickens of which the parents have lived for a number of generations in a temperature of 28 degrees *centigrade*, are hatched with little down, soon lose what they have, and for about two months remain without any other feathers than those of the wings.

Chickens not acclimated (and to the 20th generation they are not,) preserve their first down as if they had need of it. How many years, says the author, is necessary to produce a sensible change in this respect in their organization?

The fowls brought by the Spaniards succeeded very well in the greater part of the islands, but in some elevated parts, as in Cosco and all that valley, it was found at first that they would not propagate. By perseverance a few were obtained. The first were not prolific, but their descendants have become so, and now they are reproduced with the same facility as in other climates.

The same may be said of the goose which had been introduced at Bogota only within a few years.

The peacock, the Guinea hen and the pigeon do not appear to have undergone any change. The latter even preserves the variety of colours it presents in Europe.

Conclusions.—Though the preceding observations have not been made under the influence of any systematic view, it appears to us that we may naturally conclude:

1st. That it is necessary for the species to be acclimated like individuals.

2d. That domestic animals abandoned to themselves have a great tendency to approach to the organization of those of the same species we see in the wild state, and that little time suffices to work the transformation.

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[The assertion made above, that the dog was not indigenous to the American continent, is contradicted by the following abstract of a review upon that subject, read before the French Academy of Sciences, on the 2d May, 1825, by M. Moreau de Jonnes.

In this memoir M. de Jonnes establishes the fact, against some former powerful authorities, that at the time of the discovery of America by the Europeans, there existed in that continent and its islands, a species of dog entirely different from those known in Europe. In support of this fact, the following accounts, collected from journals of that period are given. On the 17th October, 1481, Columbus found on the Lucaya islands, small dogs destitute of hair upon their skins, and which did not bark. In 1494, the same navigator met on the island of Cuba, some ugly dogs of a diminutive size, presenting the same peculiarities of not barking, and having a naked skin; they were used as food by the natives, who esteemed them a great delicacy. In 1635, the French found at Martinique and at Gaudaloupe, the same species of dogs, with the same characteristic differences; they were used in these islands as hunters. In Peru and in the Brazil, they were likewise found, and were here employed to chase the wild hog. In 1518, on the discovery of Mexico, mention is made by the navigators of the time, of dogs resembling foxes, the flesh of which, after they had been spayed for fattening, was eaten. In every part of North America also, there were dogs which served for hunting, but which were not eaten, unless in times of great distress for want of food. These last, like the others, were remarkable for not barking, and when teased emitted a grunting noise peculiar to the race.

From these accounts, Mr. Jonnes concludes, that all over the continent, as far as the 50th degree of latitude, and on the islands, there existed a species of the dog, different from the European, characterised by the nakedness of its skin, and its voice. This race, he observes, has not yet been destroyed; many of its varieties are still found in various parts of America, and are designated by particular names.]

WOOL.

The following discussions in the English House of Lords, respecting the present very low price of wool in England, will no doubt receive an attentive perusal from our farming readers. It is abundantly obvious that the pressure of the times, now so generally complained of, is not confined to our country or to any particular business. It is general

House of Lords, May 25.

The Wool Trade.—The Duke of Richmond rose to propose certain resolutions on the subject of the low price of wool.

He prefaced his motion by a brief statement of the great grievances suffered by the flockmasters from the enormous importations of foreign wool. To remedy these complaints, he would propose in all the resolutions he was about to submit, a small duty to be imposed upon the importation of foreign wool, which would benefit the revenue, and at the same time enable parliament to lighten some of the burdens of the people. It would be the means of conferring essential benefits upon the flock masters, by affording them a bona fide price for their commodity. At present the market for wool was a dead one, and the price only a nominal one. The cause of the depression in the price of British wool was occasioned by the enormous importations of foreign wool, which were unchecked by duty. The consequence was, that an immense decrease in the amount of the exports of wool had followed. In fact there had been an annual decrease of 770,000*l* in value, in that article alone. His proposal was to add a duty of three-pence upon the importation of foreign wool. He saw no state reason why his proposal should not be adopted, particularly as the taxes are three times the amount at the present moment that they were, though the duty was precisely the same. All he asked for was equal protection and equal justice. The Duke concluded by moving a series of resolutions conforming to the foregoing suggestions.

The Earl of Harewood was of opinion that a protecting duty on wool would only depress the price still more. The foreigner would consume his own wool in that case, and the English manufacturer would be compelled to do the same, and the result would be a general injury to the trade. The Duke of Norfolk supported the resolutions. The present distress of the agriculturists, he believed, was greater than that of any other class. Lord Wharncliffe did not mean to deny that distress existed amongst the agriculturists, but he denied that the mode proposed was the best means of relieving that distress. The Earl of Malmesbury thought it very extraordinary that notwithstanding the assertions which had been made, the importation of foreign wool was greatly on the increase. He thought the whole system of free trade was delusive, as he knew the trade was only in name free. Lord Ellenborough said the ministers felt deeply for the losses of the wool growers; but he did not think they would be remedied by the proposed resolutions—the price of wool could not be increased, in his opinion, by artificial means—the fact was, that the importation of raw cotton had increased to such an amount, as to interfere with woollen manufactures; and he thought that any attempt to prevent the importation of foreign wool, would only increase the demand for cottons, and injure the English wool growers. After some further debate the resolutions were lost—88 to 35.

BEEF.

Brighton (near Boston) Market, August 31.

825 at market, including 8 unsold last week. The market opened uncommonly brisk and active compared with the dull and languid state in which it has been settled for three months. Before 10 o'clock, nearly all the marketable cattle were sold. We are not certain however, that the prices were materially changed any further than the natural effect of a quick market. We quote from 25 to 30 best at $5; the greater proportion at $4 a 4 50, and thin qualities at $3 50 a 4 per cwt. Store Cattle—dull—550 at market, mostly from the state of Maine. Our Eastern friends complain of the low prices they are obliged to submit to. We notice the sale of 40 or 50 yearlings at $6 per head. Sheep—4216 at market—all sold, except about 600. Lots of Sheep and Lambs were sold generally at the early part of the day, from $1 50 a 1 75 per head, and one or two small lots of prime at $1 83; but near the close the market became more languid, and the drovers submitted to less prices. Lots of fair quality at $1 17 a 1 33, and a few for less; in particular a lot of 40 at 83 cts. A lot of 31 prime Wethers were sold for a trifle more than $2 75 per head; and one or two lots, fair to middling, at $1 50 a 2. Swine—523 at market, including 57 unsold last week. About 100

Shoats were sold in small lots at 4 a 4½ cts. per lb. and one lot of 56 at 3½ cts. Whole number of Cattle, Sheep and Swine driven to Brighton Market, during the quarter commencing June 8, and ending Aug. 31, inclusive:—Beef Cattle, 3748; Store Cattle, (including Milch Cows) 1029; Sheep, 35,269; Swine, 1533.—*Boston Patriot.*

HORTICULTURE.

(From the New England Farmer.)

BLIGHT IN PEAR TREES, &c.

What Mr. Buel says of the fire blight is not so conclusive to my apprehension, as are his remarks on the girdling protuberances which have hitherto been so destructive to the plum and morello cherry. He is not alone in attributing the disease called *fire blight*, to the venom ejected from an insect; but, much as I should like to see this doctrine established, I cannot admit it for a moment. I am fully aware that a single drop of poison, introduced into the animal system, will decompose the fluids and cause death, whether it be injected by a rabid animal or by an enraged reptile. And I have no doubt but that if a sufficient quantity could be forced into the circulation of a plant, that the whole mass would be rendered unfit for the uses to which the sap is destined. I have made various experiments on the young and old branches of pear trees, but although I used the different poisons in a concentrated and diluted form—such as prussic acid—nitric acid—muriatic, &c., as well as croton oil, and mercury, in several forms—and although I sacrificed many an insect, such as poisonous spiders, &c., yet I never succeeded in injuring the tree farther than an inch or two above and below the puncture. We know that the rupture of a blood vessel, by a determination of blood to the head, will cause instant death in man, and that this is often effected by external influence, such as exposure to the sun. Here is an analogous case as it respects loss of vital principle, and the cases approach as nearly as the nature of animal and vegetable life *can* approximate.

An exotic pear, such as the Vergalouse, the Beurré, the St. Germain, or the D'Auche, grows very luxuriantly in our climate. They have the capacity of attracting a greater quantity of fluid nutriment than those trees which are indigenous. The fire blight occurs more frequently after a summer shower in July or August, and during the sunshine. A shower falling on any plant, while the sun shines fiercely, is always more or less injurious. It has been my object for many years, to ascertain the cause of this destructive disease, but vigilant as I have been, and still am, I have never yet detected any insect in the act of puncturing the tree so as to cause fire blight, *although I have actually seen the end of a limb perish with fire blight before my eyes while examining it.* I once stood under the shade of a fine St. Germain, while I was directing my gardener how to amputate the limb of a similar tree which stood about ten feet from me; I discovered the blight immediately after one of those hot showers; and, as is my constant practice, I hastened to the tree that the injured limb might be instantly separated. Whilst I stood under the St. Germain before mentioned, my eye rested on the horizontal branch before me, and to my surprise I saw the leaves change colour, from a dingy yellow to a dark brown! I had the limb cut off far below the blight, and saved the tree, as I did the one opposite to me.

We all know that the blood of animals undergoes a change as soon as it comes in contact with the atmosphere. It not only becomes altered in its nature, but it coagulates. The introduction of atmospheric gasses produces this result. So likewise with respect to the albumen or white of an egg. The substance certainly is completely changed by the mere presence of heat, but what new principle of matter is gained by the operation, is, and will be for ever unknown. While the sap of plants is confined within the proper vessels, it possesses the healthful qualities necessary to it, but if a rupture takes place at the tender extremities of a limb, or, should no rupture occur, but merely a detention or congestion of sap be the consequence of the powerful rarification which the hot, moist atmosphere causes, the sap, by coming and remaining more immediately in contact with external gasses, will acquire deleterious qualities wholly unfit for the uses of the plant. Every compound fluid undergoes a marked change when exposed to the air. Crystals become deliquescent, and fluids are crystalized according to the amount of chemical agents which are present in the atmosphere. If the sap of plants, by the detention of its particles at the extremities, becomes glutinous, or acrid, or otherwise vitiated, the returning vessels are no longer suited to receive it.

Perhaps the tender and extremely delicate ligaments which unite the different vessels, are decomposed by the acrid principle which the descending sap has acquired. Certain it is, that the parts which are overflowed by the vitiated sap have the appearance of being excoriated. Owing to our imperfect knowledge of the structure of plants, we cannot ascertain whether any of the vessels be ruptured, as in cases of congestion in the animal system, or whether any of the adhesive membranes be decomposed. If we macerate the bark and leaves of a blighted limb, in water, for six hours, and likewise macerate the bark and leaves of a healthy limb for the same space of time, we shall find that the acrid principle is more active and in greater abundance in the water in which the diseased parts were immersed, than in the other. There is therefore an excess of *acid* in the virus which excoriates the inner surface of the bark. A concentrated acid seems to be the base of all poisons, but they do not all necessarily emanate from the animal creation, whether dog, snake or insect.

We rely much on the instinct of inferior animals and insects for our safety. A rabid animal inflicts a wound, not from instinct, but from the absence of all sagacious sensation. He is in the delirium of fever. Not so with a snake or spider. It is the instinct of self-preservation, self defence, or revenge, which prompts them to inflict a wound. The instinct of animals including all that have locomotive powers, is seldom at fault in matters which concern the continuance of their species. The locust, the beetle, the pea-bug, the curculio, and a number of others, puncture the bark and the fruit of trees, and vegetables for the purpose of depositing their eggs, or to sustain life. The vine fretter and a number of the caterpillar tribe, abstract by suction, the juices of the leaves, and thus paralyze the leaf. But although this ultimately endangers the life of the plant, still it is done by the ordinary means of injuring the respiratory organs. We do not think that any insect is endowed with a virus which is so desolating in its effects as to produce the disease called fire blight, or if it be possessed of so deadly a poison, that it would expend it gratuitously on the unoffending bark of a tree. An insect could have no possible motive for ejecting its poison unless it had a prospect of present or future gratification.

Native pears are very seldom touched by this malady, because in our apprehension, the sap vessels are capable of resisting the various changes of our atmosphere. This is not the case, however, with all of our fruit trees, even of those which have for centuries been acclimated. The quince-trees, for instance, are attacked by a species of fire blight, which often injures them very materially; and I have seen the young wood or twig of the apple tree scathed as if by lightning. In truth the electric fluid seems to be the most likely agent to produce a phenomenon of the kind. When the air is charged with electric matter, the acetous fermentation of the vegetable fluid is more active, and they undergo a change at such times. This is a case well known even to the ignorant, who usually attribute it to thunder. I have repeatedly tasted the liquor in which the blasted limbs and leaves of the pear tree have been steeped, and I have as often chewed the inner and outer bark of the diseased parts. I have done this for the purpose of ascertaining the difference in taste of the sound and unsound parts. I never received any injury by so doing, nor did any virus get into the circulation, when a man's hand having a fresh cut on it, was plunged for some time in the water containing the dead branches.

Congestion does not always take place at the extremities of all plants. In the cherry and plum tree it is confined entirely to the bark of the trunk or to the thickest part of the principal limbs; and unless the ruptured spots be immediately cut out, the sap will excoriate the surrounding parts to great extent. Tall trees are more subject to this disease of the bark, than those which have short bodies or trunks. It proves therefore that a highly rarified atmosphere, accompanied by showers during the hottest period of the day, is injurious to the sap as it rises to the more succulent parts of the limbs of the pear tree, and to the exposed surface of the bark of the trunk of the cherry and plum tree. On cutting away the unsound parts of the bark of those trees, we see the effect of the want of that healthy action in the sap, the wood is stained by the vitiated state of the coloring matter, and the disease proceeds, unless the whole of the diseased parts be cut away.

New Jersey, August 27, 1829.

HOLCUS BICOLOR.

A Substitute for Chocolate.

There is a plant cultivated in Lancaster county Pennsylvania, which is considered an excellent substitute for chocolate. It is the *holcus bicolor* of Willdenow, from the seed of which is made a beverage resembling in color, taste, and many other qualities, the common chocolate. The plant is an annual, 8 or 10 feet in height, and resembles the common *broom*. The *holcus bicolor* is a native of Persia, and grows well in this country. A single plant will yield seed enough to produce by a second year's crop, a sufficiency to furnish a family of six or eight persons for a whole year, with a good and nourishing beverage, which is supposed to be preferable to tea or coffee.—It is thus prepared:—The seeds and husks are ground in a coffee-mill into grains somewhat smaller than ground coffee: it is then boiled over a slow fire, with a sufficient quantity of milk, and a small piece of butter, until the beverage assumes a chocolate color, which it receives from the husks. The liquor is then strained through gauze and sweetened till palatable.—*N. E. Farmer.*

(From the New England Farmer.)

SCORING PEACH TREES.

Mr. Grant Thorburn.—Last fall I observed that one of my best and largest peach trees appeared to be dying. And I had fully determined to dig it up, supposing it to be past recovery. But being loth to lose it, I spared it, and in the latter part of November last I scored it on three sides, cutting quite through the bark to the solid wood down to the root. On the largest limbs, as high as I could reach, I cut one score. Large quantities of gum issued from the incisions during the winter and spring, which I carefully scraped off, after every heavy rain; at times, nearly a half pint from one tree. Quite early in the season I had the pleasure to see evident signs of resuscitation, and the tree became loaded with blossoms, and has since yielded a handsome portion of excellent fruit. As soon as I saw the effect of the scoring on this tree, I scored all my other peach trees, and also my plum trees. From this I think the fall scoring is preferable. Yet the trees which I scored the last spring have borne better than at any time heretofore. Now whether my success is owing to the favorable season, or to the scoring, I am not yet fully competent to determine. But I am strongly inclined to believe that it is owing to the latter. Conscious of your anxiety to promote useful and valuable improvements, I have taken the liberty to communicate the foregoing. And remain, with sentiments of due respect, yours faithfully.

Thomas Storm.

Kip's Bay, September 3, 1829.

TO RAISE GRAPES WITHOUT SEED.

J. S. Skinner, Esq. *Smithfield, Va. Sept.* 6, 1829.

I have been a constant reader of your paper for many years, though having no use for it, not being an agriculturist I have never taken it myself—I have never noticed in your book any thing said about the grape we get from Smyrna, so much used by the confectioners, without seed. I have often wondered how those grapes were propagated.

Reading Anacharsis' travels through Greece, I came to the following note.—"To obtain grapes without seed,—take a vine shoot and cut it lightly in the part which is to be set in the ground, take out the pith from this part unite the two sides separated by the incision, cover them with wet paper, and plant it in the earth."

"The experiment may succeed better if the lower part thus prepared be inserted in an onion before it is planted.

"Should you wish to restore a vine to youth that is nearly dead, remove the earth on one side, pick and clean the roots, applying to them different kinds of manure." Should this information be considered worth publishing you may do so.

One of your Admirers.

RURAL ECONOMY.

A STEAM BOAT HOMILY,

Upon Economy—the Force of certain Prejudices—Family Pride—the Use of Mules, and divers other matters.

Mr. Editor,—The greatest convenience of steam boat travelling, but one which I have not often seen adverted to, is, that it offers no interruption to reading or writing. Here the honest lawyer may draw out his opinion in perfect harmony, if not with the law, at least with the wishes of his credulous client; the politician can sketch the portrait of a *demon*, and in pure *amor patriæ* write under it, the name of some virtuous and eminent statesman, regarded by half his country as its ornament and boast; and the charitable divine himself may here take his pen and vamp up an old sermon, sprinkling it here and there with a little fresh brimstone to suffocate and burn, and yet keep alive for the sake of burning, until "time shall be no more," ninety-nine out of a hundred of those who follow and pay him, for the pleasure of hearing themselves on every Lord's day consigned to everlasting torture and "gnashing of teeth."

> "If plagues or earthquakes break not heaven's design
> Why then a Borgia, or a Catiline?
> Who knows, but he whose hand the lightning forms,
> Who heaves old ocean, and who wings the storms;
> Pours fierce ambition in a Cæsar's mind,
> Or turns young Ammon loose to scourgo mankind?
> From pride, from pride, our very reasoning springs:
> Account for moral as for natural things:
> Why charge we heaven in those, in these acquit?
> In both, to reason right, is to submit."

But here, I am flying from an intolerance to heresy, as men jump from a ship on fire to be drowned, rather than burned alive.

To return, the practice of economy is admitted, even by those who neglect it, to be a *saving* virtue; and even were it not, necessity will sooner or later, force its adoption; although she generally shews her ugly face after the storm has passed by, to warn and reproach us in the midst of desolation and ruin.

In the conflict between *pride*, and the obligation to economise, you will admit with me that the great difficulty is to know *when* to trample pride under foot, and manfully give ourselves up to reason and common sense. To the farmer, the honest tiller of the soil, for whose benefit my humble reflections are intended, I would say, as has been said of higher interests, and by the highest authority; "*now, even now, is the accepted time.*"

Let not the resolution to retrench all superfluous expenses be postponed of its execution, to another year, nor even until Monday morning.

"Lost time is never found again, and what we call time enough, always proves little enough." But, says the farmer, I have already retrenched all in my power—in what item can I use still further economy?—And here I come to my purpose which is to point out occasionally when leisure will permit, whatever may occur to me, in answer to the oft propounded question, *in what can we economise?* I shall speak as familiarly as if I were leaning with your reader, as Sterne says, "lackadaisically over a gate," looking at his cattle feeding in his farm yard. By the by, Mr. Editor, this plain "*farmer like*" style, as it is called by pedants, is of all things the most convenient, and deserves not to be sneered at; for if it be not always more expressive than that which is more ornate and high sounding; it may be easily employed as a cloak to conceal our want of familiarity with language more polished and classical—but zounds, I must stick to my text, and by way of taking breath and considering how I am to proceed, like better men, who are better paid for their homilies, let me repeat the words which you will find thus written.—A steam boat homily upon economy—the force of certain prejudices—family pride—the use of mules, and divers other matters. Well, upon a little reflection, I do not know that I can better explain, how farmers sacrifice thousands annually, by submission to a single prejudice; than by relating a scene that I once witnessed with my good neighbour Jerry Berry.

It was on a Monday, I think it was in "dog days," I was passing by his house, and looking at the short shadow of my horse upon the ground; thinks I to myself its nearly *grog time*. I will ride up and ask my good neighbour the news, and tell him about neighbour Thrifty losing seventeen sheep by the dogs last night—you must know that we in the country, as well as you in town, like of all things to hear and tell *news*, even if its a little evil to a neighbour—it gives us a sort of sensation like—just as women run in the softness of their nature, and carry their sucking children to see a fellow being hung, like a sheep-killing dog, by the neck until he is dead. Besides, I knew my neighbour Jerry had some excellent whiskey that would soon be brought out to wash down the sorrow for his neighbour's loss, so accordingly I rode up, and hitched my horse to the only garden pale, that other horses had not pulled off, and in I went.—All turned out to a T, exactly as I had anticipated, out came the whiskey; that it was 12, was evident by the mark on the sill of the door, which gives the same time at all seasons, but if under a cloud he does not shine at all, and then we steal a few minutes.

After taking one drink for sociability, we walked out to look about and get an appetite for—another drink and our dinner. Talking over various matters and things, neighbour Berry showed me his corn loft, and lamented how *low* it was getting, and then went on to complain how many idle *horses* he had to feed. At least nine for a family of seven "whites," including three small children! There was one riding horse for himself, one for Becky, one for each of two grown daughters, and one for Tommy Berry, a great lubber of six feet, who had just returned from college to lounge away twelve months, until it could be decided in full family council, whether he should illustrate the name as *lawyer* Berry, or *doctor* Berry? Such is the fate, invariably reserved for the sons of those who grow rich by plain honesty, and hard labour. However, instead of branching off here, I'll tell you a separate story on this topic the next time I *sail* in a *steam-boat*. Well, there were five horses to feed, besides, the four more, the most indifferent of the whole, reserved to do the *labour of the farm;* and one broken-backed mare that is kept to breed a ragged colt, by an old fielder, every other year, to keep up the stock—*mem.* it is generally found essential to keep one extra horse to make up for *sore backs*, caused by bad saddles and want of care--and to meet great occasions, such as a militia muster, or a funeral, when every family turns out in great force, and under the same impulse--to wit: in search of sensations! Well, said neighbour Jerry Berry, as we returned to the house, this waste is dreadful, "when the well is dry we shall know the worth of water."

There is that horse that was poisoned by a drench, and died yesterday, for want of knowing how to tell *colic* from *inflammation of the bowels!*—He was but five years old, and 'twas only last Sunday, as we returned from church, my neighbour Boyall, offered me $150 for him as soon as he should get his money from Mr. F. in Baltimore, to whom he had sent his tobacco. I would have taken it, thinking it would pay a store debt to Mr. Sneall, or buy a pair of mules, but Becky said no, that my neighbour only wanted him for his son Dicky, to ride a courting a rich neighbour's daughter, and she did not see why our son Tommy, might not ride as good a horse as any body else's son, and so, between ourselves, I lost my horse and my money—my debt is unpaid, nor can I buy the mules as things go.

In respect to mules, continued neighbour Berry, after a pause of some minutes, I have been reflecting seriously, and am of opinion that in twenty-five years that I have been using horses, I might have saved more than would pay all my debts, and give a good marriage portion to one of my daughters, who, poor things, may never get married for want of a portion, though Becky thinks they are quite as smart looking as our rich neighbours. For one per cent. added he, mules may be insured to live twenty-five years on the poorest fare. I once knew a rich town farmer, with lots of money in a Baltimore bank, that had a pair that went into the city with an empty cart, and brought it out a loaded one twice a week for thirty years—and I never saw these mules with any thing to eat but a bunch of bay, not large enough to burn a foul chimney on a rainy day.

I am determined, said friend Berry, to sell off my *horses* and buy *mules*, for every use, if I can only get my family to agree to it. Just at this stage of our conversation we re-entered the house. Here the first thing was to take another drink, to whet the appetite for dinner, and here wishing your readers good health and good night; I must take my leave of them, waiting for my good friend Douglass' boat on the Delaware, the opportunity to relate how neighbour Berry broke to his family the awful proposition *to substitute mules for horses*; how it was received, and how his well laid scheme of *economy*, was frustrated by the prejudice, which may even be called national as well as absurd, against the long ear and slim tail of a faithful animal, causing by an obstinacy worse than mulish, a loss of thousands upon thousands of dollars!! I may relate further, the amusing, but fruitless arguments of my friend Jerry, in favour of this one practical item of economy in particular, and against vulgar prejudices in general. How he told the case related by the historian; and repeated by Helvetius, of the hump-backed nation that jeered a straight man who was cast on their shore, saying nature had "robbed him of his fair proportion," and finally drove him off, not being able to tolerate his *deformity;* how he quoted to Becky Voltaire's definition of beauty:

"Demandez à un crapaud ce que c'est que la beauté, le grand beau, le *to Kalon:* il vous répondra que c'est sa crapaude avec deux gros yeux ronds sortant de sa petite tête, une gueule large et plate, un ventre jaune, un dos brun. Interrogez un nègre de Guinée: le beau est pour lui une peau noire, huileuse, des yeux enfoncés, un nez épaté."

"Ask a toad what is beauty, the supremely beautiful, the *to Kalon:* he will tell you, it is my wife, with two large round eyes projecting from her small head, a large and flat neck, a yellow belly, a brown back. Put the question to a Guinea negro, the beautiful is, with him, an oily, black skin, hollow eyes and flat nose."

And how, finally, but in vain, he endeavoured to reconcile Becky, (who grew more indignant as Jerry grew more serious,) to the idea of riding a mule to church, by quoting the well known edict of the king of Spain, giving permission, as the greatest mark of royal favour, to the great Colombus, the discoverer of her country! to ride a mule for the *benefit of his health,* though he was *"not a nobleman."* But once more, good night, for all around me are snoring—the Israelite and the christian, the missionary and the Turk; all except the pick-pocket, and he is "playing 'possum," waiting for a chance at some honest

Clodpole.

(From the Steuben Messenger.)

CHEESE MAKING.

I am induced to make the following communication, the principles of which will be found in Thompson's Chemistry, with the hope that it may be of use to some of the readers of the Messenger, and as this is the season for testing its utility, if you think it will be useful you are at liberty to publish it.

A Lover of Good Cheese.

Milk is well known to consist and is easily separated into three parts—cream, curd and whey.

The cream is of an oily, rich, and sweet substance, diffused through the others, and easily separated from them by standing, but can never be hardened or curdled with rennet.

Curd may be separated from the whey, by heating it a little more than blood or milk heat when it comes from the cow, and adding a little rennet, and its richness depends upon the quantity of cream that may be diffused through it, and which may be easily pressed out.

Whey is the remaining fluid, and its richness, color and taste depend upon the quantity of cream it may contain.

Cheese, it is well known, is made from the curd, and the cheese is the better the more it contains of the cream, or of that oily matter which constitutes butter; its goodness, therefore, depends in a great measure upon the manner of separating the whey from the curd!

If the milk be much heated, the curd broken in pieces, and the whey forcibly separated or pressed out with heavy weights or patent presses, as is the practice with many, the cheese is scarce good for any thing, but the whey is delicious, especially the last pressed out, and butter may be obtained from it in considerable quantities. A full proof that nearly the whole creamy part of the milk has been separated from the cheese and is in the whey.

Whereas if the milk be not too much heated, just sufficient to curdle, if the curd be allowed to remain unbroken, and the whey be separated by very slow and gentle pressure, the cream is retained and the cheese is excellent, but the whey is almost transparent and nearly colorless.

LADIES' DEPARTMENT.

(Abridged from a late London Magazine.)

EXERCISE OF FEMALES.

No absurdity is greater than that which associates female beauty with great delicacy of body and debility of constitution. If beauty, as the term is understood in Europe, may be defined the highest degree of perfection of which the human frame is susceptible, every deviation from that condition must diminish the pretensions of the individual; and it would not be more inconsistent to say, that a rose, bathed in the refreshing dew of morning, and blushing healthful upon its stem, is less beautiful than that which is drooping and withering from the baneful effect of the canker-worm in its core, than that the female form is rendered more beautiful or interesting under the pressure of disease. Fashion, the tyrant of opinion, has occasionally decreed, that elegance can only be found associated with languor, and that a pale visage and a hectic flush are the legitimate indications of beauty; but the same capricious legislator has, at one time determined that a woman should be shaped like a wedge. There can be neither beauty nor symmetry of form without health; and the opposite opinion can have originated only from the prejudice that to be full of health is to be *coarse* and *vulgar.*—Observe a young beautiful girl, of seventeen, educated in the country, when first she makes her appearance in the circle of fashion in the metropolis. Is there any thing more interesting or lovely in nature? The eye sparkling with vivacity and health, yet scarcely daring to meet the admiring gaze which it has attracted; the elegant oval face, shaded with the yet naturally clustering ringlets, parted upon the smooth ivory of the forehead; the tint of the rose blending with the lily on the cheek; the live vermilion of the moistened lip; the round, but neither full nor slender neck, set upon the gracefully swelling bust; and the symmetrical proportion of the body, the limbs, and the arms. This attractive being is in the bloom of health; yet she is neither coarse nor vulgar; her carriage is graceful, and equally devoid of affectation and restraint; her step is firm and elastic, yet very different from the strut of conscious superiority; and the feminine delicacy which characterizes every look and movement is far from being that expression which accompanies the languor of corporeal debility, and indicates the presence of disease.—To gain such a state of health is a matter of the first consequence; to know the means of preserving it must be equally important. As the girl rises into the young woman, active exercise becomes, in some degree incompatible with the habits of the sex; but it should still be continued within bounds of propriety. But we may observe here, that the restraints imposed upon young women in society, ought, under no circumstances, to prevent such exercises from being daily taken as will bring every muscle of the body into action. The necessity for adhering to this rule is even more necessary, after a young lady is brought out, as the term is; for, although the result of late hours and dissipation be fatigue and debility of frame, yet these are not to be supposed to warrant listlessness, apathy, and indulgence in bed, until the period arrives when the same round of pleasure is again to commence. If a young lady, after the fatigue of a ball, were to rise in the morning, and get upon horseback to breathe the balmy and refreshing air of early day, she would feel invigorated, cheerful, and even fitted for a renewal of the dissipations of the evening, provided these be not too frequently repeated; whereas, if she remain in bed till mid day, she will rise pale, languid, listless, and unrefreshed; and although the stimulus of pleasure, which is one of extraordinary power on a youthful mind, may enable her to run the circle of a winter's assemblies and visitings, yet, at the termination of the season a shock has been given to the constitution, from which it can never recover.

THE FEMALE HEART.

The female heart may be compared to a garden, which when well cultivated, presents a continued succession of fruits and flowers, to regale the soul, and delight the eye; but, when neglected, producing a crop of the most noxious weeds; large and flourishing, because their growth is in proportion to the warmth and richness of the soil from which they spring. Then let this ground be faithfully cultivated; let the mind of the young and lovely female be stored with useful knowledge, and the influence of women, though undiminished in power, will be like "the diamond of the desert," sparkling and pure, whether surrounded by the sands of desolation, forgotten and unknown, or pouring its refreshing streams through every avenue of the social and moral fabric.

SPORTING OLIO.

Note to the Editor of the Sporting Magazine.

There is no department of the Sporting Magazine which can be better filled up than that of *shooting*—if you can only prevail on gentlemen to give you notes of their sport in that way. I should be highly gratified, for one, if you could get several gentlemen whom I could name, to send you reminiscences of their luck and skill on auspicious days of shooting. The Sporting Magazines of Europe are filled with accounts of shooting matches, which, to American sportsmen, I am persuaded, would not appear extraordinary. Since you have, at great expense, "got up" a Sporting Magazine, to be conducted in the first style of execution, it is to be hoped gentlemen will not be backward in giving you sketches of *their* sporting excursions with the gun, and of their notions of game dogs—best kind of guns—sporting powder, &c. I should like, of all things, for example, to see a given number of members of the English shooting club, take the field, all in good fellowship, a sort of which fellowship sporting always begets,—against an equal number of the crack shots amongst your own acquaintances in Maryland, day in and day out for a week. How would the best day's English sport compare, *for the table,* with one day's *canvass back* shooting on the wing, at Carroll's island? If you could engage any of these gentlemen to give you, during the next season, in time for each month's Magazine, the number of his shots, the number of birds bagged—the kind of birds, and a brief description of the country shot over—it would be entertaining, and would stimulate gentlemen to keep the best dogs, to be equipped in sportsman-like manner, and would encourage the rising generation of young men, to spend their leisure time in the *open field,* and in *manly exercises*—instead of seeking to kill time in an oyster cellar, or village stores, drinking still-burnt whiskey, and in other and more pernicious haunts of dissipation. I rejoice that we have at last an elegant repository which will beget a fondness for healthy rural sports, and where no gentleman will be ashamed to see his feats and his name.

Cure for the Mange in Dogs.

Mr. Skinner: *Campbell station, Ten. Aug. 26, 1829.*

Sir,—I have a dog, of seven or eight years of age, which is very valuable, he, twelve months ago, became affected with the mange, which I neglected, until ulcers became formed and running about his head, the hair was nearly all shed from the body, and his tail, unless the very extreme point, entirely naked. About a month past, I have had him washed three or four times a week, in the lime pit of my tanyard, in a few days the hair began to grow on his tail, and the ulcers about his head appeared to be healing. I now wash him every morning in the lime pool, and I have every reason to believe it will entirely cure him, and my opinion is that animalculæ are the entire cause of the disease, as well as every other of the same character. Samuel Martin.

[It is probable that a solution of *chloride of lime*, say about a pound or half a pound to a gallon of water, to be used every other day, would be still more efficient.]

Cure for Cancer in the Lips of Dogs.

Rub the parts affected with alum water, two or three times a day, or rub with bole ammoniac and burnt alum occasionally.

MISCELLANEOUS.

COTTON DUCK.

Copy of a letter from Isaac McKim, Esq. to Warren R. Davis, Esq. dated

Baltimore, Aug. 15th, 1829.

I received this morning your letter of the 13th instant requesting my experience and opinion respecting cotton duck, which I shall give with great candour, as I have no interest in the use of cotton duck, farther than the general interest of the country. Having been constantly engaged in the shipping business as owner, for about 30 years past, and particularly in fast sailing Baltimore schooners, my attention has been constantly applied to whatever would improve their speed in sailing, as those vessels are generally employed in such voyages where every thing depends on fast sailing; and when the British orders in council were in force, France was principally supplied with colonial produce by this description of vessels under French imperial permits—and sometimes I have been under the necessity of standing my own underwriter to the amount of $100,000 on a single vessel—thus situated, every attention was bestowed on the outfit of the vessel, but at this time I was not acquainted with the great value of cotton duck.

It was during our late war with Great Britain, that it began to be introduced, and my first knowledge of it was in about 1813, by being used on a Baltimore schooner, called the Tuckahoe, and which vessel, in consequence, had the reputation of outsailing all the other Baltimore schooners. In 1815, I built two fine schooners, burthen about 200 tons each, the one called the Rossie and the other the Plattsburg, both these vessels' principal sails were of cotton duck, and fully answered expectation as far as heard from,—both being uncommon fast sailing vessels, and in which I consider the cotton duck had a principal share; in the year 1823 I built the fast sailing schooner Yellot, burthen about 180 tons, and this vessel's sails were entirely made of cotton, both light and heavy sails; her reputation for sailing is not exceeded, if equalled, by any vessel of her class. She has made two voyages around Cape Horn with cotton duck, and two to Smyrna; none but cotton duck has ever been used during those voyages, and so fully satisfied am I with cotton duck, that I shall never permit any other to be used on board my vessels, as I am fully convinced that it is far superior to all other duck, without exception. In the first place the cost is rather under the best Holland duck—second, that it will outlast any other duck, as it never mildews—third, that a vessel with a suit of cotton duck sails, will sail nearly a mile per hour faster than with sails of any other description—this fact is so well established, that all the fast sailing boats in the Chesapeake bay, as Mr. Hooper, a respectable sail maker of this place, has just informed me, have no other sails than cotton duck. Mr. James Cooper, a highly respectable pilot for the port of Charleston, has informed me in a conversation respecting cotton duck, within a few days past, that he was obliged to use cotton duck in self-defence, as he found the other pilot boats laid nearer to the wind with cotton duck sails, and outsailed his boat, but when he put the cotton duck on her, she outsailed them. Capt. Kelly's fine ship Peruvian, built in this port, has made four voyages around Cape Horn, with no other sails than cotton duck—he prefers it to all other canvass, as to its lasting and increasing the sailing of the ship. I saw a sail on board the other day; which had made the above voyages, and looked quite well—he has promised me a certificate respecting the wear of the Peruvian's sails, which, when received, I will send you.

I am much pleased to hear that the Secretary of the Navy has it in contemplation to make an experiment of cotton duck. I am fully persuaded that it will succeed, if attempted, and that it will be a great step for the country, the navy, and all concerned. As it respects the navy, it will give them the capacity of outsailing or catching their enemies, as may best suit the occasion; but I hope the experiment will be fairly made, that is, let a sloop of war or a frigate, have an entire suit of sails (both light and heavy sails) made of cotton duck, and go out in company with another sloop of war or frigate with the canvass now in use in the navy, and have a trial of sailing—after this has been done, let the vessel with the cotton duck sails unbend them, and put to the yards the canvass now in use, when the difference in point of sailing will be perceived. As for the cost of the experiment it is not worth mentioning—the sails will not be lost, and in justice to the country the experiment ought to be made without delay; there is only one objection to the use of cotton duck, which requires consideration; and that is, whether it is more likely to take fire in time of action than other canvass—in answer to this, I say, let a fair experiment be made at the navy yard, Washington, under the inspection of the president, secretary, and all concerned.—My plan would be to have an old mast rigged with shrouds, &c. with a fore yard, and cotton duck sail affixed thereto, and a similar mast and fore yard with foresail affixed, of the canvass now in use by the navy—then let as many 24 pounders be fired at those sails at such distance as the wads would strike, and see which sail caught fire first—the only way to meet objections is to have the experiment made to test them. As to the strength of yarns by weight, I am not acquainted with that manner of trying; but if a principal sail will make two voyages round Cape Horn, or the Cape of Good Hope, I want no further wear out of it, as it has then more than done its full duty—the mere fact that a vessel with cotton duck sails will sail faster than with any other canvass, is sufficient to cover a great many objections, but I maintain it is cheaper and better in every respect besides the price of the cloths:

Best cotton duck, No, 1, 40 cts.	per yd.	22 in. wide.
2, 38	"	"
3, 36	"	"
4, 34	"	"
Best cotton duck, No. 5, 33 cts.	per yd	22 in. wide.
6, 32	"	"
7, 31	"	"
8, 29	"	"
9, 28	"	"
10, 27	"	"

I think No. 1 rather too heavy for the navy; as it weighs nearly a pound to the yard of 22 inches wide. I, however, make use of this number for the schooner Yellott's three lower sails. As for cotton rope, I am sorry that it is not in my power to give you any information respecting it, as I have never seen any of it used. As for cotton rope or yarn that is exposed to the air for a length of time, I should think it would do it great injury. Plenty of first quality cotton duck to be had here.

A militia captain receiving a note from a lady, requesting "the pleasure of his company," understood it as a compliment to those under his command, and marched the whole of them to the lady's house.

THE FARMER.

Baltimore, Friday, September 18, 1829.

Maryland Agricultural Society.

Thursday, September 10, 1829.

The Trustees of the Maryland Agricultural Society held their monthly meeting this day, at Woodly, the residence of Jacob Hollingsworth.

Present, B. W. Hall, President, and ten trustees, the treasurer and corresponding secretary; amongst other business transacted, it was *Resolved*,

That, John S. Skinner, Samuel W. Smith, and Henry V. Somerville, be appointed a committee, to consider and report to this board, at their next meeting, how far it will be expedient for the Maryland Agricultural Society to employ the means at its command, for the establishment of *annual fairs, or public sales of domestic animals*, and to what extent that object may be made to supersede, advantageously, those which have hitherto received its attention.

John Ridgely of Hampton, was unanimously appointed a trustee, to fill the vacancy occasioned by the resignation of Charles C. Harper, who is on a visit to Europe.

The trustees adjourned to meet at Oaklands, the residence of Thomas Oliver, on Friday the 9th October next.

☞ The "Steam-boat Homily" of our correspondent Clodpole, on account of some objectionable passages, might not have been inserted, but that we do not know that an editor has a right to reject every essay in which he finds portions that he cannot approve.

☞ An Azorean Paradise.—A much respected gentleman at the eastward, whose lady and daughter embarked last July for Fayal, on a visit to some near and dear relatives, thus describes their residence on one of the Azores islands, in a letter to the Editor of the American Farmer:—"The mansion is situated in the centre of a garden of three acres, and commands an extensive view of the harbour, and of the volcanic island of Pico. In this garden vegetation never ceases. Skirting the upper part, is a hedge composed of geraniums entirely, more than six feet in height, containing every variety of leaf and flower, and blooming in January with all the luxuriance of summer. Scattered in the richest profusion along the walks, they will find orange, lemon, and citron trees covered with blossoms and fruit in every stage of advancement; and thus they appear the year round; at the same time, roses of vast variety are shedding their fragrance. In March they will see the Peach, the Apricot and the Almond in full bloom; and around them the Sugar Cane, the Tea and Coffee Shrubs, and the Fig." They probably arrived just at the commencement of the vintage, and of course will have sixty days to riot on the delicious grapes of Pico, garnished with most delightful apricots, figs, &c.—the thermometer ranging from 52 to 80° the year round.

☞ A gentleman of our acquaintance is desirous of purchasing, in addition to his present stud, two thorough bred brood mares, of approved pedigrees, of large size, and of fine symmetry. Any proposals, in writing, received by us, (postage paid,) in virtue of this notice, will, without delay, be transmitted to our friend, who will not fail to give to the same the requisite attention. Every such proposal, it is expected, will furnish the necessary information especially and minutely as to the *pedigree*, the *size*, the *figure*, and the *price* of the mare.

☞ Mules.—Another drove of superior Kentucky mules will be at the Three Tunn tavern, in Pratt street, on Monday next. There will be sixty in number, and they are represented as very fine animals. Gentlemen wishing to supply themselves with this very valuable stock, are advised to examine them.

Latest Foreign News.

Intelligence from France, four days later than our last accounts, has been received at New York. Letters from Bucharest, dated July 6, state that the sieges of Rutschuck and Giurgevo were to commence immediately, and that a part of the army of operation at Silistria had marched in that direction. A corps of observation of 30,000 men, remained before Choumla, and General Diebitsch was making preparations to advance on Adrianople. The reinforcements on their march had orders to rendezvous with all speed at Bazarerchik.

A Russian and Turkish Commissioner had an interview in the camp at Choumla, to understand each other as to the negotiations, which it was proposed to open. Russia, it was said, proposes as a basis the treaty of Ackerman, and an indemnity to be subsequently discussed for the expenses of the war. It was doubted at Constantinople, whether the Porte would nominate commissioners, until all the conditions proposed by Russia were positively known. The Porte was by no means disheartened.

They wrote from Jassy on the 8th of July, that in consequence of the victory of Koulevtcha, a Russian corps, under the orders of General Pahlen had passed the Balkan, thus transforming the seat of war to Roumelia. On the other side of the Balkan, there was a large body of troops at Eski Stamboul. A new army of fresh troops was entering the Principalities. The reserves were passing the Danube, and the Army of Observation thus strengthened sufficiently to advance and appear in the course of a few weeks before Adrianople.

Petersburg was illuminated on receiving the news of the fall of Silistria. News was received at the same time of a victory gained by united detachments, under Major Generals Mcurarieff and Buzzow on the 14th of June, over great masses of Turks, in the defile of Pozhow, in which they lost their camp, which was carried by assault, their artillery, stores, &c., with 400 prisoners and five standards.

The Nuremburg Gazette announced that Varna had certainly been evacuated by the garrison, on account of their sickness.

Markets at Havre, July 31st.—Sales Cotton, 98 bales Georgia 91c.; 28 Louisiana at 97; 43 do. at 1 204; 150 brls. Potash, 42.

Mexico.—Intelligence from this quarter begins to assume an interesting aspect. By a recent arrival from Vera Cruz, we learn that the Spanish force, landed at Cabo Rojo, and which took possession of Tampico, amounted to less than 3,000 men, most of whom are said to have been negroes and mulattoes. On the fifth August; a party of fifty went out to explore, and were cut to pieces, a captain and three soldiers being taken alive. Information of the landing reached Vera Cruz on the 2d or 3d of August, when General Santa Anna issued a proclamation. On the 4th, Santa Anna sent 500 dragoons from Jalapa, Vera Cruz and Orizava, and on the 6th, he went by sea to Tecolutia, with 1200 veterans, selected from the 2d, 3d, 5th and 9th permanent regiments, with two companies, and succeeded in landing without impediment. The Infantry, commanded by Landers and Gen. Santa Anna, Chief of the troops, which had come in from all parts, amounted to ten thousand men. These numbers are variously stated; but it is certain that Santa Anna has a much stronger force than it was supposed here could be mustered. Unanimity of feeling prevails among the Mexicans, against the common enemy, and in no instance had their offers of pacification and bribery been accepted. The rumor which we recently heard that 400 mounted troops had gone over to the Spaniards, was totally unfounded.

Prices Current in Boston, September 11.

Apples, best, bbl. —— a ——. *Beans*, white, bushel .90 a 1.00. *Beef*, mess, bbl. 10.50 a 11.00; cargo No. 1, 9.50 a 10.00; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .13 a .15. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 6.00 a 6.25; Genesee, 5.87 a 6.25; Rye, best, 3.50 a 3.75. *Grain*, Corn, bu. .60 a 62; Rye, .63 a .65; Barley .67; Oats .42 a .45. *Hogs'-Lard*, 1st sort, new, lb. .8. *Pork*, clear, bbl, 16.00 a 17.00; Navy, mess, 13.00 a 13.00; Cargo, No. 1. 12.50 a 13.00. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool*, Merino, full blood, washed, .32 a .42; do. do. unwashed, .18 a .25; do. three-fourths, washed, .28 *a* .32, do. half blood, .24 *a* .36; do. quarter, washed, .22 *a* .25; Native, washed .20 a .30; Pulled, Lambs', 1st sort, .34 a 32; do. 2d sort, .22 a .25; do. spinning, 1st sort, 27 a .30.

Prices Current in Philadelphia, September 15.

Bees-wax, yellow .23 a .24; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10.50 a 11, prime 9 a 9.50, cargo 7; *Butter*, No 1, .7½ a .8, No. 2, .5 a .6; *Cotton*, New Orleans .10 a .12, Upland 9. a .10, Tennessee 9. a .10, Alabama 9. a 10; *Feathers*, South. .32 a .34, West. .32 a .34; *Flax* .7½ a .8. *Flour*, sup. 5.50, fine, 5.00 a 5.25; Rye 3.50 a ——; Cornmeal, hds. 11.50 a ——, bls. —— a 2.18¾; *Flaxseed*, cask —— a ——; bu. 1.12½; *Grain*, Wheat 1.05 a 1.10; Rye .50 a.60, Corn l. c. white, .47 a .48, l. c. yellow, .49 a .50, u. c. round, .53 a .54; Oats .25 a .30, Barley, Pa. .— a .—; do. East. .55 a .60; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia .8 a .9, Western .8 a .8½; *Hemp*, 200 a 210; *Lard*, .6 a .8; *Oil*, linseed, .68 a 69; *Pork*, mess, 13.25 a 13.50, prime 11.50 a —, cargo 10.50 a 11.00; *Rice*, 2.50 a 2.87½; *Tobacco*, Kentucky .4 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .26 a .28, half blood 28. a .31, three quarters blood .31 a .32, full blood .34 a .38; unwashed, generally 10 cents less, according to quality.

JACKASSES.

For sale, by the subscriber, three very superior Malteese Jacks, lately imported direct from Malta, in the brig Ivanhoe, at Boston. They are each four years old this summer, two of which are now fourteen hands high, or nearly that; the other one is a little over thirteen hands high; all in good health and fine condition. They have been tried to mares since their arrival, and perform very vigorously without any hesitation. Any inquiries, by mail, post paid, will have immediate attention.

SAMUEL JAQUES, Jr.

Charlestown, Mass. Sept. 8, 1829.

ALMANAC.

1829. September.	Sun. Rises. H.	Sun. Rises. M.	Sun. Sets. H.	Sun. Sets. M.	Length of days. H.	Length of days. M.	Moon Rises. H.	Moon Rises. M.
Saturday,...... 19	5	55	6	5	12	10	11	5
Sunday,........ 20	5	57	6	3	12	6	11	57
Monday,....... 21	5	58	6	2	12	4	morn	
Tuesday,...... 22	5	59	6	1	12	2	0	51
Wednesday,.. 23	6	0	6	0	12	0	1	47
Thursday,.... 24	6	2	5	58	11	56	2	44
Friday,......... 25	6	3	5	57	11	54	3	40

Moon—Last Quarter, 19th, 6 h. 59 m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There has been a trifling advance in the price of Howard street flour, or rather holders are more firm at the highest rate of our last quotation, owing to the very small receipts. The wagon price is $5.25 a $5.37½, and the store price $5.50—$5.62½ has been demanded, but we do not hear that it has been obtained. There is little variation in grain. *Live Stock.*—Beef on the hoof is brisk at our quotations.

Tobacco.—Maryland, ground leaf, $6.00 *a* 13.00—seconds, ordinary, 4.00 *a* 6.00—red, 4.00 *a* 6.00—fine red, 7.00 *a* 9.00, for wrapping 5.00 *a* 12.00—Ohio, common, —— *a* ——.—good red —— *a* ——.—fine yellow —— *a* ——.—Rappahannock, 3.00 *a* 3.50—Kentucky, fine 4.00 *a* 5.50—wrapping, 4.50 *a* 7.00.

Flour—best white wheat family, $6.25 *a* 6.75*—superfine Howard st. 5.50 *a* ——; city mills, 5.00 *a* 5.25 Susquehanna, ——. Corn Meal, bbl. 2.37½—Grain, best red wheat, 93 *a* 1.00;—best white do. 1.08 *a* 1.10; ordinary to good, .90 *a* .95—Corn, white, .40 *a* .42; yel. .40 *a* .42—Rye, —. *a* .45—Oats, .— *a* .29—Beans, 1.10 *a* 1.15—Peas, .60 *a* .65—Clover seed, 3.25 *a* 3.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—Barley, .45 *a* .50—Flaxseed, .75—Cotton, Virg. .9½ *a* .10—Lou. .11 *a* .12—Alab. .9 *a* .10—Mississippi .10 *a* .12—North Carolina, .8 *a* .9—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .21½—in hbls. .22 *a* 24½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* ——; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, —— *a* 5.50—Herrings, No. 1, bbl. 3.75 *a* 4.00; No. 2, 3 50 *a* 3.75—Mackerel, No. 1, 6.50; No. 2, 6.00; No. 3, 4.50—Bacon, hams, Baltimore cured, .9 *a* .10; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .28 *a* .30—Plaster Paris, cargo price per ton, $3.50, ground, 1.25 bbl.—Prime Beef on the hoof, $4.75 *a* $5.00.

* Six dollars and seventy-five cents by the single barrel, for Ellicotts' Patapsco white wheat family flour.

CONTENTS OF THIS NUMBER.

A new Treatise upon Sheep and Wool, translated from the French, by the Editor of the American Farmer, continued; chap. 3. Of Merino Wools, as they appear on the Fleece—On the changes which take place in Domestic Animals transported from Europe to America, translated from the French for the American Farmer—The Wool Trade in England—Beef Market at Brighton, Mass.—On the Blight in Pear Trees—The Holcus Bicolor, a substitute for Chocolate—To raise Grapes without Seed—A Steam-boat Homily upon Economy, the force of certain Prejudices, Family Pride, the use of Mules, and divers other matters—On Cheese making—On Exercise in Females—The Female Heart—Note to the Editor of the Sporting Magazine—Cure for the Mange in Dogs, and for the Cancer in the Lips—Cotton Duck, Copy of a Letter from Isaac McKim, Esq. to W. R. Davis, Esq.—Editorial, Proceedings of the Maryland Agricultural Society; Azorean Paradise; Mules—Latest Foreign News—Advertisement—Prices in the Boston, Philadelphia and Baltimore Markets—Almanac for the week.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

COMPLETE TREATISE ON HORSES.

Teaching how to judge them; to rear and manage them; how to improve their breed; to prevent or to cure the maladies and accidents to which they are liable; and to derive from them the most value under all circumstances. Useful to Breeders and Farmers, engaged in the rearing of these interesting animals; to Officers of Cavalry or Inspectors of Recruits; to Keepers of Livery Stables, Sportsmen, or Veterinary Surgeons; to stage Proprietors, Travellers, Farriers, Horse Jockeys, Amateurs of the Horse, &c. &c.

By an Old Officer of the French Cavalry.

(*Translated from the French for the American Farmer.*)

(Continued from p. 194.)

CHAPTER XV.

Of Exercise and Repose.

It is important, without doubt, to consider the beneficial influence of exercise and repose. The first preserves the strength and health, the second acts as the repairing principle to all the animal system.

Of Voluntary and Involuntary Motions.

All is in motion in nature, but this movement cannot be constant; it is absolutely necessary that it be followed by repose. Organized beings are all endowed with this faculty; but it appears above all, destined for those which in their conformation are provided with organs of motion, such as animals in general. There is among them two kinds of movements; the one spontaneous, which is made without the will of the animal participating in it in any manner, as that of the heart, the stomach, the respration, the circulation of the blood, &c.; the other is voluntary, and carries the animal by the assistance of the senses to where his desires call him, and makes him avoid the objects which might injure him.

We may then consider the voluntary movement in animals as having two very distinct objects; the one to conduct to good, the other to avoid evil. This voluntary movement conduces perfect to the health of animals; it facilitates the excretns, and augments the circulation in all the vessels

It is remarked, that wild horses, enjoyg all the benefits of nature, often run, and eve challenge each other to this kind of exercise. ny travellers report having seen them in the islds always in motion, and that they appeared to ve no occasion for repose. Nature in fact hasven to the horse a conformation which obliges h to take the most violent exercise; and there is praps no being in nature that can dispute the prize owifiness with him.

Prodigies of Fleetness and ility.

On the courses in England, hors ave performed feats which may be considered onishing—they have outstripped the wind, and h been known to go 62 leagues in 11½ hours. Its been asserted that the Arabian horse has often velled 30 leagues in the desert without stopping being unbridled. Exercise should always be portioned to the strength of the animal; but i certain that forced exercise is not so pernicious solute repose; and that a horse overworked will be exposed to as many maladies as one abaed in a stable without exercise or work. Exc e repose soon transforms a good horse into ae. His form alters, his vivacity is changed in uggishness and languor—his perspiration is ied: hence the return of all the forces of the er to the interior which occasions disorders of itestines. Circulation languishes, particularly of the lymphatic vessels. Muscular action, its action and spring; the air becomes vitia ecause it cannot be renewed, and his respiration is obstructed. Then ensues the diarrhœa, the molten grease, (*gras fondu,*) worms, choking of the first passages (*premières voies*)—in a word, all the psorick maladies: the horse is in a state of fatness contrary to nature—blemishes come on the extremities—such are the evils that arise from continued repose. A horse should then be often exercised, and if that be impossible his food should be changed—diminish his ration, and give him only straw; water him often, and be careful to put salt in dissolution in his water, and to administer aperitives, as crude antimony mixed with his oats; and above all do not neglect rubbing, because in this case it should supply the want of exercise.

It is important to know that there are maladies that will resist the most skilful and methodical treatment, if regular and moderate exercise be not used with the administration of the medicines—the scab, the farcy, &c. are of this kind.

The accidents which arise from excessive exercise, are the termination of the forces from the interior to the exterior: the muscular action absorbs these same forces—the interior organs languish, the circulation of the blood is augmented as well as all the secretions—it becomes poor and thick; in fine the muscles fall in the same state as from want of exercise; they are in a complete state of inertia. Sometimes when the exercise has been excessive the animal falls dead from the exhaustion of all its forces. Sometimes there is not, in these cases, in the interior any apparent organic injury—at other times the diaphragm is found broken on the membranes of the stomach. It happens too when the horse has been foundered, that he is found attacked suddenly with fever, vertigo, tetanus, inflammation of the lungs, ruptures and spasm of all the muscles. From violent exercise results *marasme* (extreme leanness,) and premature old age—too often brought on by the capricious tyranny of man.

The horse thus ruined preserves sometimes a devouring appetite; in this case, if his food be judiciously given he may be restored—this is what is called a *re-made* horse. Commonly, after this prostration of his forces, he loses his hair, his shape becomes sensibly altered, the articulations enlarged, the limbs become enfeebled and distorted.

If we would know how to prevent all these accidents nothing is easier; it is to spare in exercise and in work the strength of the horse, and to proportion his nourishment to the services we wish to exact from him. Should his work be increased, his food ought to be augmented in proportion, in order to supply the losses. He should rest at least an hour after feeding—after riding he should not be fed till an interval of half an hour at least has elapsed.

It is as essential to regulate the repose and exercise of the horse as his food, if we would keep him in the state most proper for his preservation. Moderate work preserves his strength, favours the circulation necessary to the animal economy, and aids all the secretions. This principle is so true, that horses in regiments of cavalry have often been seen to thrive on the march, and arrive at their destination in a better state than when they set out.

It should not be forgotten that the work should be proportioned to the strength—to wish that a horse of four years should render the same services as one of seven, is absurd. If we neglect to spare horses during the time that nature employs for the development of the body of the animal, we shall soon see them before the age of vigour become feeble, and often ruined and unfit for service. How many saddle horses, from having been rode too young, remain all their lives in a state of feebleness, which they cannot surmount. There are certain races of horses which attain their growth sooner than others: it is important to have regard to this observation, and to follow the wise indications of nature; which, by causing developments more or less late, shews herself disposed to accelerate or retard our enjoyments.

A horse of a good stock may be rode younger than one of an inferior race, because his strength is earlier developed.

Horses late in attaining their growth last longest: this observation is confirmed by experience and cannot be contested. Those that grow fast are shorter lived. It is a general rule in nature that by the growth of the being we must measure the duration of its existence.

CHAPTER XVI.

Of Repose and Action, and some precautions necessary for managing a Horse on a Journey.

Sleep suspends the action of the senses and all the free and voluntary movements—at least sound sleep; for when interrupted by dreams or any other cause of agitation, it ceases to be refreshing, and rather fatigues than restores him. Sleep is a momentary cessation of the functions of animal life; those of organic life are never suspended. Sound sleep soon restores the strength of the whole system; and it may be asserted, is the time most proper for all the functions of the internal organs. Digestion is performed better than when awake—the urines are presented in the most perfect state.

When the sleep is disturbed it is more fatiguing to the animal than being awake, and a horse should be awoke if agitated by any painful dream. The horse sleeps very little, and he should be invited to it by a good bed. The greater part of them sleep only four hours, and there are many that do not lie down, but sleep standing. The horse from his make is perhaps of all animals capable of standing longest on his legs: this circumstance, however, should not induce us to neglect littering him, because many horses do not lie down for this reason, or that they are in the mud.

Precautions to Travellers.—Useful Observations.

When you would begin a journey, it is important to examine the horse's feet to see if his shoes want renewing: but you should not for that wait the moment of departure. The horse ought to be accustomed to his shoes—while they are new they may cause some pressure either on the sole or by the nails that confine the hoof.

The horse ought to be put in wind; that is to say, daily and gradually exercised to the moment of his departure on a journey, that he may not be overcome by fatigue, and should be accustomed to bear the same portmanteau to be used on the journey. He ought not to travel far the first days, but augment the distance gradually and almost imperceptibly. Care should be taken in feeding not to give him too much. The ration of oats ought to be increased, in proportion to the work and fatigue. The journey should be prosecuted as much as possible without halting, with the precaution of not putting the horse in motion until an hour after eating, and not feeding for half an hour after his arrival. Then the digestion is better made, and the assimilation perfect. If this method, from any motives, be departed from, the oats should be given before the hay; but, except in extreme cases, it were better to adhere to it.

The most favourable hour for departing on a journey in summer, is sunrise, or even before. By this means flies are avoided, which distress the animal much more than the journey. In winter, on the contrary the journey should be performed, as much as possible, towards mid-day.

In general we should abstain from the barbarous custom of docking horses; but particularly those intended for the road—for what means is left the animal of defending himself against the insects that devour him in hot weather? There is not a custom more fatal to the health of this interesting animal than docking. On account of this ridiculous mutilation, we see the most healthy horses, exposed to the sun without means of avoiding the flies, become lean and fall off daily.

The Gait of the Horse should be regulated,—in what manner.

The first third of the journey ought to be performed slowly—the second third can be done faster; but it is advantageous to finish as we begin, to avoid the dangers of suppressed perspiration, the fruitful source of most of the maladies in horses—perhaps no animal is more subject to it.

On arriving, if the horse be warm, he ought to be walked slowly until he ceases to perspire. He can be then unsaddled and covered after being well rubbed down with straw. His legs should not be rubbed—this custom is the most pernicious that can be used: the humours have already sufficient tendency to those parts from the violent motion of the journey. In this case astringents ought to be used: cold water or mixed with acid; bathing is found most beneficial. This prevents the founders, scratches (*crevasse,*) water in the legs (*eaux aux jambes,*) and other maladies occasioned by stagnant humours in those parts.

The eyes, the nostrils, and particularly the fundament, and genital parts, either of the horse or mare should be washed, the belly alone excepted.

If the horse has made a long journey a good cordial should be administered an hour after his arrival—old wine with bread to fortify the stomach. Food will be of little use to him then, because the stomach is too feeble to digest well. This cordial restores it at the moment when the animal has most occasion for it. Oats, though very good, is not the best food under these circumstances.

Manner of producing good Digestion. Of Littering; its good effects.

On arrival, and while the horse is not eating, undo the curb, and leave the bit in his mouth. This produces the effect of a masticator, making them chew well, and the stomach digests perfectly.

Care should be taken to give fresh litter, after cleaning the place where it is to be put. This excites the animal to urinate often, which is always a good sign of health. He should not be watered until he has eaten nearly half his food.

Great care must be taken of his feet, examine them often, and take out every thing that may lodge between the shoe and hoof, as well as between the frog and heel; see that the sole is not bruised, and that there are no stumps of nails left; such things are often incrusted in the sole, and the horse vigorous or heated, does not limp for a long time after. In this case potter's clay must be applied—or, the best unguent for the feet: this is composed of olive oil, yellow wax, hogslard, mixed in equal parts—turpentine, honey and soot, may be added.

If the horse begins to limp he must be unshod; this is the means of relieving him: after having examined the foot, a light shoe should be tacked on with a few nails. If he stand on the toes, the founders may be apprehended, which attack principally the fore feet; in which case vinegar mixed with chimney soot, applied as a plaister is a good astringent, the use of which should be recommended; bleeding is also practised.

The bits should be often washed, that they may not contract a bad smell, which will happen if they are impregnated with the saliva—this is unpleasant to the horse. The pannel of the saddle and housings should be exposed occasionally to the sun, and the former beaten with a stick to prevent the hardness which sometimes injures the horse in a part very difficult to cure. In crossing rivers or brooks, the horse may be allowed to drink, if the water has the proper qualities, which we have before described. Good effects can alone result from it—for the blood being heated in travelling, will receive the necessary vehicle for circulation.

But if the water does not appear to be pure, or there is reason to believe it contains substances in dissolution which would be injurious to the animal economy—in a word, if it contains any of the bad qualities which we have mentioned in the proper place, the horse should not be allowed to drink. The same may be said of the source of any water course, however pure it may be. We have given the reasons, which it were superfluous to repeat.

Lassitude—means of remedying it.

If the horse appear fatigued after his journey, the extremities should be bathed with cold water, and with bran and water—and some days after blood letting. The most happy effects will generally ensue; and if the horse be young we may be assured that he will be restored in a short time.

CHAPTER XVII.

Different Temperaments.

We have mentioned some principles and indicated many means which we have believed proper to give to the faithful companion of man, the degree of utility of which he is susceptible. Our researches have been directed particularly to the most efficacious and certain means to preserve this interesting animal from the accidents which our information and foresight may prevent. But it is not sufficient to establish fixed and invariable principles; there are a number of modifications which may embarrass and defeat measures which, good in themselves, may not be proper to the subject to which we would apply them.

The different species of animals have in each of them affinities which assimilate them, and differences which distinguish them. Though connected by general affinity, the individuals of the same species differ so much that it is important to know it; and this difference arises from the diversity of temperaments, which is found modified in all the circumstances of life by age, the season, the climate, and many other causes.

The mucous temperament appears in colts. The winter contributes to diminish this predominance of humours—and there is less of it in cold climates. But the temperament suffers constant changes in different ages, and does not remain long the same. In youth there is more similarity between many animals of the same species.

The natural temperament is to be distinguished from the acquired. The latter is when an animal is fed with heating or diluent food; the changes of climate, the kind of work, &c., are so many causes which modify his temperament, change that originally given him by nature, and create a new one which may be considered as acquired.

Sickness may alter the temperament in a remarkable manner.

Independently of the different characters which constitute each temperament, there are many particular shades that characterise each individual; and experience has proved that these are so distinct among themselves, that a purge administered in the same quantity to three different horses, will purge one very well, another very little, and the other not at all.

There are, besides, in certain circumstances of life, moments which modify the state of each temperament—Luxations (*diastasis.*) for example, make a horse appear of a temperament entirely opposite to that which he really possesses.

But not to be exposed to errors which might become fatal, it is necessary to explain what is to be understood by temperament.

Temperament consists in the difference which is remarked between individuals, resulting from the properties and relations which may exist between them: it is a particular disposition of the body, produced by a combination of principles, of which it is composed: it is from the union and accord of these principles, as well solid as fluid, which mutually repress and temper each other, that the etymology of the word is derived from the latin verb *temperare.* It is then in consequence of this manner of being, that health shows itself differently in each individual.

We will mention some general considerations on this subject.

The first consists of the relation of the solids with the fluids; the second of the relation of the blood with the lymphatic system; the third of the connexion of the nervous with the muscular system.

In the first we may discern three distinct combinations—the predominance of the fluids over the solids, or of the solids over the fluids—or the perfect equilibrium between the two principles, which is most agreeable to perfect health.

The predominance of fluids over solids commonly attends young horses, those that are weak, those that have too much repose, those that have been deprived of the light, those raised in marshy places, to geldings, and restored horses. This false plumpness arises from the watery humours formed in the *cellular membranes.*

The horses we have mentioned are generally found large bodied, the vessels are buried in fat, the muscles almost invisible, the extremities have much hair and little heat; the pulse slow; the animal is sluggish and lazy—he may be strong but not active.

These horses from their temperament are disposed to cutaneous maladies—the farcy, the scab, the glanders, and to vermin. Among them the crisis of disease is brought on with difficulty, and the least ulcer is perpetuated.

They may be castrated without danger, and the operation is not to be feared, which proves their want of strength. In administering medicine four times as much may be given them without fear, as to a horse of a sanguinary temperament—they eat heartily, the absorbent system being much developed—and are not subject to the founders, but rather to cachectic diseases. They should not be [illegible] to grass which would favour too much their mucous diathesis—tonics, on the contrary, should be given—hay and oats will not be injurious. These horses will sustain fatigue if not too much pressed, and live long if well used—it is rarely necessary to bleed them. Aperitives should often be given, such as the Ethiop's mineral, antimony, &c., to prevent extreme [illegible]ness.

The second case, that is the predominance of solids over fluids, appears to belong to old horses, and particularly to those who have worked much.

This temperament is shown by striking exterior marks—the horse is meagre, the muscles developed, the skin dry and hard, and the *apophyses* very salient.

Horses of this kind are bilious; they are naturally very choleric and irritable, and ought not to be ill treated.

Warm climates commonly favour this disposition, and it is generally most intense in summer.

After what we have said it is evident that horses are subject to bilious diseases, which may be effectually combatted [illegible] acids.

Old horses are subject to gangrenes, to psorick maladies, the gripes and dysenteries. They should be fed oftener; the stomach and all the organs are in a state of weakness which will not allow of work so great as to prevent the assimilation of the other parts—hence bad digestion. There is sometimes an acid fermentation in the first passages (*premières voies,*) whence these maladies arise. The most effective remedy is volatile alkali given in water: this, by means of the [illegible]ties, exercises a chemical action, which is very beneficial.

This kind of horses should be often bathed and tonics given to them.

The bilious temperament appears to belong more particularly to mules: they are restive, capricious and ill-tempered, and fo[illegible] with difficulty any ill treatment they have received, and are very subject to sharp diseases.

It may be said that if cold and humid climates concur powerfully with sluggish and phlegmatic temperaments, that warm climates occasion those of a bilious nature.

In the former the fluids predominate over the solids, particularly the mucous; in the latter the solids prevail over the fluids.

It should follow that when there is a perfect equilibrium between them, the animal, by this happy combination should enjoy the most perfect health. But is there a single temperament where this happy equilibrium exists? This is what observation has not yet demonstrated to us.

The sanguine temperament appears to offer, in general, the most happy combination. Horses of this kind are commonly lively and gay; all the visible membranes are of a lively red; the pulse is quick and the heat considerable; all the secretions and excretions are well performed, the muscles well developed—all these circumstances give them generally an air of joy and contentment.

Though this temperament be most advantageous, it is not less exposed to inflammatory maladies and to phlethora, particularly towards spring. They should be given little oats, and hay and much straw; in a word, anti-phlogistics are best suited to them. These horses are more active than strong; their ardour should be spared, and the good-will they shew should be moderated by those who drive or ride them. Their vessels are very apparent, and their extremities fine and delicate. This temperament is developed in temperate climates, principally among horses that have not been castrated.

We ought, as we have before said, to give these horses diluents and cooling medicines. The greater operations are to be feared: fever is easily occasioned. Their irritability is so intense that convulsions and spasms may occasion death.

These horses should be put to grass every spring. This temperament is diametrically opposite to the phlegmatic. The latter is seen in cattle and sheep, and the greater part of horses, raised in cold and humid climates or on marshy ground. They are only good for draft.

The principal causes of the change of temperaments is the transition from a warm to a cold climate—or vice versa—the food, the kind of work to which the animal is subjected, and the administration of the food itself. Among horses, castration, chronic maladies and some others, are causes which may modify and change the constitution of the individual, and give him a different temperament which cannot be considered as natural, but acquired. These are the principal causes which make the noble races of horses, such as the Arabian and Andalosian brought to France, degenerate; and that they are never so vigorous or good as in their native countries.

(To be continued)

HAY CROP.

Norfolk, Sept. 7.

We publish the following interesting fact in the hope that it may turn the attention of the farmers of our vicinity to the immense profit which it is in their power to realize, and with very little labor too, from the lands which they have abandoned to run up in pine thickets, because forsooth, they are too much exhausted to produce *Indian Corn.*

There is a small enclosure in front of Commodore Barron's residence in the Navy Yard, which measures (exclusive of the walks,) one fourth of an acre, 19 poles and 13¼ yards. From this small piece of ground, the soil of which is quite ordinary, 655 lbs. of excellent hay, were cut on the 18th June, and 920 lbs. on the 4th of this month.—As the fall crop will equal if not exceed the middle one, there will have been cut from this little pasture of somewhat more than a quarter of an acre, three crops, weighing 2600 lbs. or about four tons to the acre, of as fragrant and nutricious hay as can be produced, no matter where, and vastly superior to the northern hay, with which our market is exclusively supplied —and for which we pay from 15 to $20 per ton, Taking the last at the price which our farmers could readily obtain for their hay, and we do not hesitate to say, that by this species of cultivation alone. their lands would yield them at the rate of from 50 to $80 per acre annually, with little other labor or expense than harvesting, a profit so far exceeding that which could be produced from any other crop, by dint of the most intense and unremitting toil, that it is a matter of astonishment to us that our farmers should have remained so long unmindful of it, and patiently submitted the golden prize to the fruition of their more managing neighbors of the north, who have heretofore had the almost entire monopoly of our market. We trust that after this plain demonstration of their true interest, they will set to work in good earnest, and "*make hay while the sun shines.*"

Commodore Barron has sent us a package of his last crop, which we shall for the present keep in our office, that we may enjoy its delicious perfume; and exhibit it to our agricultural friends as a sample of what they might raise themselves if they had a mind to try.—*Herald.*

ON THE CULTURE OF THE POTATO.

Mr. Skinner: *Sept.* 12, 1829.

Another opportunity has been offered by the publication of the American Farmer, to advocate and increase the interest of that valuable and indefatigable part of society called Farmers. Not being a very speculative Farmer, but willing always to improve on the experiments of those who have leisure and opportunity to produce to the world something new, and seeing a piece in your valuable work, stating the propriety of plucking the blossoms from the potato vine, I determined to pursue the advice in a small way; I had three rows of potatoes planted in my garden about the first of April (of the Mercer potato) as usual, to be convenient to the cook for early use; and on observing the above publication, I selected one row from which I plucked the flowers with my own hand as fast as they made their appearance, and suffered them to remain untouched on the other two, but in my absence the cook (not knowing my determination) began to use them as soon as they were fit for the table, and unfortunately commenced on the row from which I had taken the blossoms; I then had to confine my experiment to a small compass, by measuring twenty-eight feet of each row which remained undisturbed until the 28th of August, when they were carefully dug, washed clean and dried two days, then particularly weighed in a pair of scales. The result was, that I had 26½ lbs. from the 28 feet which had the blossoms removed and 21 lbs. from the other 28 feet. Still resolving to prosecute the investigation further, I selected three potatoes from each parcel, had them boiled, no person but myself knowing from whence they were selected, nor for what purpose; when placed on the dinner table, I cut one of each into two parts, placed each half on the plate of a gentleman who was dining with me, and repeated the same towards my wife, and requested them to give their opinions relative to the quality of the two halves presented to them, they both immediately exclaimed in favour of the potatoes from which the blossoms were extracted.—The ground was prepared and the potatoes planted the same day, and of the same kind, worked at the same time, and in the same manner; the rows within three feet of each other; the potatoes dug, washed and weighed the same day, by myself—if this is not sufficient proof, what more is required?

A few words relative to our crops. When the Farmers first began to get out their wheat after harvest, it was a general remark it would produce a great abundance of grain for the quantity of straw, but I had my doubts then; now let me ask, where the Farmer is, on this shore, who has obtained as much grain as his expectations led him to believe? *None.* Again, your paper has been filled of late, from various quarters of the globe, with the animated idea of tremendous crops of Corn, (the crops are certainly very good) but we are now stripping off the blades and tops, and you will hear no practical Farmer (I do not mean such Farmers as are called from their beds to breakfast, by a servant, and puff tobacco and drink wine, from three till tea,) but will cry out, I have been disappointed, and my crops are not so good as the season led me to calculate on. Let him reflect on the wet and cold spring which prematurely hardened the stock; the heavy and repeated rains which caused it to overshoot, and the small white worm which infested the roots and he will soon find the cause.

An Eastern Shore Farmer.

(From the New England Farmer.)

CULTURE OF THE SWEET POTATO, &c.

[Read at the last meeting of the Massachusetts Horticultural Society, Sept. 5.]

Hon. H. A. S. Dearborn,
Pres. Mass. Hort. Society.

Dear Sir,—Not being able to attend your meeting to-morrow, I take the liberty to address you on the subject of the culture of the sweet potato, and I am induced to do so on account of the republication of an article on that culture, copied into the New England Farmer of this day from Loudon's Gardener's Magazine. The instructions were written by B. W. Strong, Esq. of Long Island, N. Y. I do not question that gentleman's skill and success in that climate, but it is not adapted to our own. His practice is conformable to that of South Carolina, but will not succeed here. The practice of New Jersey is different from that recommended by Mr. Strong, as will be seen by the instructions published in the Massachusetts Agricultural Repository about ten or twelve years since. Sweet potatoes will produce at the joints of the vine here, but they are of no considerable size or value and never ripen. With us, the best potatoes are produced, like the Irish potato, as usually called, from strings, (*stolones*) issuing directly from the planted potato. So far from encouraging the growth from the joints, the Jersey practice is to *raise the vines,* to *prevent* their rooting. Such also is the Ohio practice, in a climate nearly resembling our own.

But my main object was not to guard our cultivators against a practice not adapted to our shorter summers, (and they are shorter by about eight weeks than those of Long island as the market records indisputably prove;) my principal design was to acquaint my horticultural friends that there are no less than *five distinct varieties* of the sweet potato—botanical varieties, by which I mean, varieties, which learned men would admit to be as distinct, as those of the common potato—varying in their stalks, and their leaves, as well as tubers or roots.

There is one now growing in my grounds, (I wish it were any where else) with distinct *palmated leaves,* that is, with five fingered leaves. It is a worthless plant. There are milk-white, yellow, purplish, and red tubers or roots. Now there are but two sorts of *any value* for us, and I wish that this should be distinctly understood—there is a white, and a red variety, with delicate stalks, and small undivided leaves, both of which throw out tubers freely, *near* the surface of the ground, which are thick, fleshy, mealy, and profitable. There are three other races, boastful in their foliage; but severe trials of the patience of the raiser. A man would do better to give ten dollars per bushel for seed of the one, than to receive as a present the seed of the other. Perhaps my remarks will seem to deserve some weight, when I state that I introduced the culture of the sweet potato here about twelve years since—that I have constantly devoted 16 square rods of ground to them—that they furnish my table from August 1st to November 1st—and produce 40 bushels on that small quantity of the poorest land I have, a sandy loam, in which sand constitutes about three-fourths of the whole soil. I have never failed, when I had my seed from an intelligent quaker in New Jersey; but accident having delayed their arrival 2 years out of 12, I was obliged to purchase seed roots here, and the failure has been lamentable. I send to the Society specimens of the three bad sorts, that they may know how to avoid them. They are tolerable at the latter end of the season, but they are too long, too much disposed to produce straggling roots, and not to produce early, well ripened tubers. I beg your members to try them—I wish I could send them the *true* sorts, that they might witness their great superiority. I think your Society would do well to order from Friend **Edmund Darnell** of Jersey, a regular supply of seed. They would soon learn to distinguish between the good and the bad.

This will perhaps be thought too long a communication on such a topic, but when I add, that within two years only the Parisian cultivators are awakened to the value of this cultivation, and that we, on sandy soils, (*let it be noticed, on sandy soils*) can grow them to be as sweet and farinaceous as in South Carolina, (which they never can in Paris,) perhaps this favorite culture so often urged, may be thought to require this ample elucidation and discussion.

I shall send to your meeting to-morrow, a bunch of the *Malaga Grape*, whose synonymes in the English gardens, are "*White Hamburg*," and "*Portugal.*" I was disappointed in its weight, which is far less than its bulk would promise—it only weighs three pounds; while a *Black Hamburg* of equal size, would weigh six pounds, and would be worth eighteen times as much, if we were to estimate it according to its excellencies. I send one bunch of wall-ripened *Black Hamburg* for your immediate taste and judgment, and I think you will agree with me in my opinion of its superiority to all other grapes, The great bunch hung up in your room will keep perfectly well till your anniversary dinner. The Hamburg will not keep, and had therefore better be tasted at once. I send also one specimen of the *Capiaumont pear*, grown on the *original tree*, sent by Mr. **Knight**. It is of *medium* size only, as many being *larger*, some twice as large. It is a fair representation of its beauty. It is not ripe, but artificially promoted *towards* ripeness by an insect now within it. Of course, it is not a fair sample. I send it, however, as the product of the tree, which grew in Mr. **Knight**'s garden, and therefore dear to me; for I have the deepest veneration for that distinguished man, not merely on account of his seeking out the means of encouraging Horticulture here, unasked, unsolicited, but on account of his discoveries in the physiology of plants. I shall send two fruits of the *Passiflora edulis*, a stove plant—the fruit is eaten in Mexico and Colombia, and recently raised for the table in England. Its flavor is peculiar, its aroma agreeable to some, and much otherwise to others. So it is with the fig. and the olive, and the pomegranate—but some English gentlemen have built hot houses, merely to raise this plant for the table. It is eaten with wine and sugar, and made into marmalade. Luxury must make great progress in our country before this fruit can be an object of culture as an edible article, but this variety of the *Passiflora*, for its beautiful foliage, and its flowers, though inferior to others, may be cultivated.

I am, dear sir, respectfully yours, J. **Lowell**.

Roxbury, September 4, 1829.

N, B. The Passiflora came to me as *P. Serrulata*, but it is not known by that name in England.—Mention is made in the article on the sweet potato in this day's N. E. Farmer, of the beauty of its flowers. I never saw the flower of the sweet potato, and several Carolinians told me that they had never seen the flower.—It is a convolvulus, but it does not flower with us even in the green house. Does it flower in New York? J. L.

SHEEP.

A gentleman who resides in the neighborhood of this city, has sold, during the present season, a flock of one hundred and eighty full blooded merino sheep, for the sum of 250 dollars. In the flock were 100 ewes, and 50 lambs.

The same gentleman in 1817, received five dollars a head for a flock of sheep, 90 in number, which were no way superior to those he has sold this year at the rate of 1 dollar 38 cents a head.

[*Philadelphia Gazette.*

(From the Richmond Enquirer.)

Cattle Cured.—One of my oxen was taken a few days ago very suddenly with very singular symptoms, such as I had never before seen. He appeared perfectly deprived of the use of his limbs, and was taken in very rapid succession with convulsions. They came on by a wild gaze of the eye, and very apparent sensations of horror, lasted generally from two to three, and sometimes as long as five minutes, and during the intervals the animal gave evident symptoms of weariness. Upon examination I found his horns perfectly cold, which induced me to bore them, and into the holes (made four or five inches from the head,) I poured a strong mixture of black pepper, salt and vinegar. Not more than fifteen minutes elapsed before the convulsions ceased; in less than an hour he fed as usual, and at this time (three days since his attack) is apparently as well as any animal on my farm. I am induced to make this public, as I apprehend the complaint, (from the extreme dampness of the season,) will not be very uncommon, and also because of the simplicity of the remedy, and the fair promise it gives of efficacy.

A PLANTER.

Brighton Market.—*Monday, Sept.* 14.

(Reported for the Chronicle and Patriot.)

Beef Cattle.—815 at market, including about 40 unsold last week. The market was quite brisk, more cattle were taken than at any preceding market day for six months; not more than 50 or 60 remained unsold at the close of the market. But few good cattle in, and those were sold generally at about $4 75 per cwt.; middling qualities, which composed the greatest proportion, at $4 a 4 25; and thinner qualities from $3 50 a 4

Store Cattle.—713 at market. The market continues dull—but few sales were effected compared with the number in, and those at very low prices.

Sheep.—3361 at market--nearly all sold—Lots of Sheep and Lambs were sold generally, at $1 33 a 1 67 per head—a few small lots, best, for a trifle more, and near the close of the market those that remained unsold, which were of thin quality, for considerably less. Two or three lots of good Wethers brought from $2 50 a 3 per head, and a few lots of fair to middling, $1 50 a 2.

Swine.--541 at market, including 24 unsold last week. The market continues slow and dull. A few were retailed at 4 a 4½ cts. per lb. and one or two small lots were taken at a trifle over 3½ cts.

A man has no more right to say an uncivil thing, than to act one--no more right to say a rude thing to another, than to knock him down.—*Johnson.*

HORTICULTURE.

MORNING STAR—INQUIRY.

To J. S. **Skinner**, Esq. *Williamsburg, Sept.* 14, 1829.

Dear Sir.—I wish you would inquire through the medium of your agricultural paper, what Cobbett, in his treatise on gardening, calls the *Morning Star. Eo nomine* I know it not. He describes it as a beautiful flowering shrub or tree, and common in Long island. The whole flower, when open, according to him, is about three times the circumference of a dollar. The blossoms of the Morning Star appear the earliest in the spring, and can be seen from a great distance shining through the boughs of the forest trees in a most beautifully picturesque manner. We have in Virginia a tree common in our woods, called *Red Bud*, which nearly corresponds with Cobbett's description of the Morning Star, but differs from it as to the colour and magnitude of its blossoms. Nothing can be more engaging to the sight, than the appearance of our *Red Bud*, with its countless multitude of beautiful blossoms suspended by delicate footstalks from every part of its different branches, always in tremulous motion when the gentlest breath of air passes along, and deeply blushing through the woods, before the leaves are seen in evolution upon the parent tree.—I should like to be acquainted with its botanical name.

A **Subscriber**.

(From the New England Farmer.)

NATIVE GRAPE.

Mr. Fessenden.—When in Boston a few weeks since, a number of our horticultural friends were desirous of knowing whether we had any *native fruits* with us which were truly valuable. Feeling anxious, if in my power; to aid their laudable exertions in *searching out* and *propagating* all the native fruits of real worth, I recollected a native grape which with us is considered well worthy extensive cultivation, of which I promised to give them some definite information. Since my return I have seen the owner of the original vine in our county (Mr. B. D. **Buck** of Weathersfield) who gave me the following notice of it.

The original vine was found on a small creek, in the interior of Pennsylvania; was discovered and cultivated by the Germans who inhabited that part of the county, and who valued it very highly. Mr. **Buck** has been in possession of his vine about ten years. He procured it from Albany, of the person who brought it from Pennsylvania. The fruit is purple, close set, cluster not very large, form nearer round than oval, pulp about the same as the Isabella, *never sheds its fruit*, and is in eating from eight to ten weeks, a constant and great bearer; it has been judged to have had upon it at a single time fifteen bushels. It has never been trimmed, and is now in very fine order, heavily laden with fruit. *He* calls it the "*Columbian*," *we* the "*Buck Grape.*" I hope it will be acknowledged worthy of *one* name by the Massachusetts Horticultural Society, after testing the sample which I shall endeavor to forward them when in season. If they have not *now* the same kind, I will forward to their hall a quantity of roots or slips, should it be their wish.

With sentiments of respect,

I remain, yours,

E. W. **Bull**.

Hartford, Conn. July 6, [illegible]9.

At one of the late meetings of the Paris Horticultural Society, a M. Fourq[illegible] presented some potato plants upon which had been grafted the stalks of the tomato (*solanum lycopersicum, L.*) The vegetation of these plants was very vigorous and the potatoes are described to have been of excellent quality.

RURAL ECONOMY.

PRESERVATION OF APPLES.

The following valuable observations, contained in a letter from Noah Webster, Esq. have been published in the Massachusetts Agricultural Repository.

"It is the practice of some persons to pick apples in October, and first spread them on the floor of an upper room. The practice is said to render apples more durable, by drying them. But I can affirm this to be a mistake. Apples, after remaining so long on the trees as safety from the frost will admit, should be taken directly from the trees to close casks, and kept as dry and as cool as possible. If suffered to lie on the floor for weeks, they wither and lose their flavour without acquiring any additional durability. The best mode of preserving apples for spring use, I have found to be, the putting them in dry sand, and as soon as picked. For this purpose I dry sand in the heat of the summer, and late in October put down the apples in layers, with a covering of sand upon each layer. The singular advantages of this mode of treatment are these: 1st. The sand keeps the apples from the air, which is essential to their preservation. 2d. The sand checks the evaporation of the apples, thus preserving their full flavour—at the same time any moisture yielded by the apples (and some there will be) is absorbed by the sand, so that the apples are kept dry, and all mustiness is prevented. My pippins in May and June are as fresh as when first picked; even the ends of the stem look as if just separated from the twig."

(From the Journal of Humanity.)

RULES FOR MAKING GOOD BUTTER.

If you have four or five cows, it is best to churn every day; and by no means less frequently than every other day. If you cannot churn every day, throw into the cream, when gathered, a handfull of nice salt. In very warm weather when milk sours soon, put two heaping table spoonfulls of salt into every pail of milk, before straining. The quantity as well as the quality of butter is greatly improved by this method. If you have ice, put a small piece into every pan of milk, and also into the cream when you churn. If you have no ice, put the cream into a pail and hang it in the well twelve hours before churning. In the warm season cream should be skimmed as soon as it is in the least sour, and in the coldest weather milk should not stand more than 36 or 48 hours. The utmost care should be taken to keep every article used in making butter, perfectly sweet, by frequent and thorough scalding.

Experience.

LADIES' DEPARTMENT.

(From the New York Morning Herald.)

RELIEF FOR SUCKLING MOTHERS.

There are two remedial articles or inventions promising great advantages to mothers and infants, that deserve to be more generally known. One of them is intended to draw milk from a distended or obstructed breast; and is a beautiful substitute for the human mouth. Persons skilful in sucking cannot always be procured, and when their service is obtained, they are not unfrequently disagreeable from their looks or behaviour to the patient, more especially if she be of a delicate constitution. The apparatus now under consideration, consists of a bag or bottle of elastic gum; that may contain a gill, nicely connected with a piece of prepared box wood. By its natural elasticity the gum bag distends itself and attracts air through a small opening in the box wood—when it is intended to be applied to the nipple it is pressed by the hand of the operator until it is exhausted, or in other words, the air expelled. In its upper part there is a cavity large enough to receive the nipple. The lower part which comes in contact with the contiguous part of the breast is slightly concave and about one inch and a half in diameter. The nipple and breast being wetted and the air of the instrument discharged, the concave parts are duly applied and the hand removed from the bag. The elasticity of the bag is active in restoring the vacuum by some fluid, but as no air can now be admitted the milk is drawn by the suction, from the breast into the bag, by a most gentle operation to the great relief of the sufferer.

The other contrivance is intended for mothers, who though able and willing to suckle their infants are often distressed, and sometimes even prevented from the performance of this maternal office by sore nipples; to the inconvenience of both the parties. This consists of a circular and concave piece of well turned box wood, prepared like the preceding instrument for adaptation to the breast and reception of the nipple. The outer surface of this cavity is nicely covered with the skin and nipple from a cow's teat. This is applied and held in its place by the mother's fingers. The apparatus being close, the babe sucks through the cow's nipple without irritating in the least that of its mother. It is so skilfully prepared that the utmost neatness and purity are preserved, while the infant is nourished without distressing its parent. They may be had of Mr. Patrick Dickie, Apothecary, No. 413, Broadway, corner of Lispenard street.

A CHARACTER.

I do not know any object more interesting, in social life, than an amiable young lady receiving her company, ministering to their amusements, mingling in every little tide of talk, and directing the while, the whole pleasant, but intricate, machinery of a party. It requires something that may be called talent to entertain company with grace and ease—to draw out the retiring character of the reserved—bring congenial spirits into acquaintance and fancy its glittering flashes. A large party contains various dispositions, tempers, likings, antipathies, &c. These are the materials out of which are to be constructed, pleasure, delight and enjoyment. It is the peculiar province of woman, in polite society, to cement the different elements of happiness together by her plastic band. In such a situation her skill is most seen as well as felt.

THE BUTTERFLY.

The Butterfly was a gentleman,
 Of no very good repute.
And he roved in the sunshine all day long
 In his scarlet and purple suit:
And he left his lady-wife at home,
 In her own secluded bower;
Whilst he, like a bachelor, flirted about
 With a kiss for every flower.

His lady-wife was a poor glow-worm,
 And seldom from home she'd stir;
She loved him better than all the world,
 Though little he cared for her.
Unheeded she passed the day—she knew
 Her lord was a rover then;
But when the night came on, she lighted her lamp
 To guide him over the glen.

One night the wanderer homeward came,
 But he saw not the glow-worm's ray:
Some wild-bird saw the neglected one,
 And flew with her far away.
Then beware, ye Butterflies all, beware,
 If such a time should come;
Forsaken by wand'ring lights you'll wish
 You had cherished the lamp at home.

SPORTING OLIO.

WILD PIGEONS.

The woods in the vicinity of this city, and also on Long island and New Jersey, are filled with wild pigeons. Some parts of the Harlem road yesterday were lined with gunners, who found no difficulty in filling their bags in a short time. *N. Y. Ev. Post.*

Large flocks of wild pigeons have, within a few days, passed over the Fair Mount Dam. Some of these flocks are described by the spectators as having been two or three miles long. [*Philad. pa.*

CAMEL FIGHTS.

At particular seasons of the year, camel fights are common at Smyrna and Aleppo. Such exhibitions are the disgrace of the vulgar, be they the high or the low vulgar of all countries; and the lion fights of the savage Romans, the bull fights of Spain, the bull and badger baitings and cock fights of England, and the camel fights of Asia Minor, are equally indications of a barbarian spirit, which can only be eradicated by knowledge and true religion. Of these, however, the camel fights appear the least objectionable. The camels of Smyrna are led out to a large plain, filled with eager crowds. They are muzzled, to prevent their being seriously injured, for their bite is tremendous, always bringing the piece out. A couple being let loose, they run at each other with extreme fury. Mr. MacFarlane thus describes to us this curious scene:—"One of the favorite holiday amusements of the Turks of Asia Minor is furnished by the camel combats. An inclosure is made, and two camels, previously muzzled so that they cannot hurt each other much, are driven in, and incited to fight with each other. Their mode of combat is curious; they knock their heads together (laterally,) twist their long necks, wrestle with their fore legs, almost like bipeds, and seem to direct their principal attention to the throwing down of their adversary. During this combat the Turks, deeply interested, will back some one camel, and some the other; and they will clap their hands and cry out the names of their respective favourites, just as our amateurs do with their dogs, or as the Spaniards, at their more splendid and more bloody bull fights will echo the name of the hardy bull or the gallant *matador*. The Pasha of Smyrna used frequently to regale the people with these spectacles in an enclosed square before his palace; and I saw them, besides, once, at a Turkish wedding, at the village of Bournabah, near Smyrna, and another time on some other festive occasion, at Magnesia. I once, however, chanced to see a less innocent contest, which I have noticed in my volume of travels. This was on the plain between Mounts Sipylus and Tartalee, and the town of Smyrna. It was a fight in downright earnest. The huge rivals broke away from the string, and set to in spite of their drivers. They bit each other furiously, and it was with great difficulty the devidgis succeeded in separating these (at other times) affectionate and docile animals." [*Menageries.*

MISCELLANEOUS.

(From the Gloucester Telegraph.)

FISHERIES OF MASSACHUSETTS, &c,

A general account of the fisheries of Massachusetts and its neighboring states from the years 1780 to 1810, made in the year 1815, by a gentleman now deceased, who was well acquainted with the business, and who took very considerable pains to make his statement correct, it having been made by particular request, and for a special purpose. A copy of the estimate here follows:

"My calculation is, that there were employed in the Bank, Labrador and Bay Fisheries, in the years above mentioned 1232 vessels yearly, viz: 584 to the Banks, and 648 to the bay of Chaleur and Labrador. I think that the 584 Bankers may be put down at 36,540 tons, navigated by 4617 men and boys, (each vessel carrying one boy.) They take and cure 510,000 quintals of fish; and averaging about three fares a year, and consume annually 81,170 hogsheads of salt. The average cost of their vessels is about $2000 each—the average price of their fish at foreign markets, is $6 per quintal. These vessels also make from their fish annually, 17,520 barrels of oil, which commands about $10 per barrel. Their equipments cost about $900 each, annually, exclusive of salt. The 648 vessels that fish at the Labrador and in the bay, I put down at 41,600 tons, navigated by 583 men and boys.—they take and cure annually, 548,000 quintals of fish—they go but one fare a year, and consume annually 97,200 hogsheads of salt. The average cost of the vessels is about $600, and their equipments, provisions, &c. is $1050 each. This description of vessels is not so valuable as the Bankers, more particularly that class which goes from the states of Maine, Connecticut, and Rhode island, as they are mostly sloops, of no very great value. Most of the vessels cure a part of their fish near the place where they catch them, on the beach, rocks, &c., and the rest after their return home. Several cargoes of dry fish are shipped yearly from the Labrador, directly for Europe. The usual markets for these fish are in the Mediterranean—say Alicant, Leghorn, Naples, Marseilles, &c. as small fish are preferred at those markets, and the greater part of the fish caught up the bay, and at Labrador, are very small. The average price of these fish, at the foreign market is $5 per quintal. These vessels also make from their fish about 20,000 barrels of oil, which always meets a ready sale at a handsome price, say from 8 to $12 per barrel. The most of it is consumed in the United States.

Recapitulation.—1232 vessels employed in the Bank, bay and Labrador fisheries, measuring, in tons, 85,140; number of men they are navigated by, 10,559; number of hhds. of salt they consume, 178,370; number of quintals of fish they take, 1,158,700; number of barrels of oil made, 37,520. There is also a description of vessels called jiggers, being small schooners, of about 30 to 45 tons, which fish in the south channels, on the shoals, and near Cape Sable—their number 300, and carry about four or five hands each, say 1200 men, and take about 75,000 quintals of fish annually, and consume 1200 hhds. of salt, and make about 4000 barrels of oil. Their fish is generally sold for the West Indies, and home consumption.

There is still another desrription of fishing vessels, commonly called 'chebucco boats or pink sterns;' their number is 600, from 10 to 28 tons, and carry two men and a boy each, say 1800 hands, and consume annually 15,000 hhds. of salt—they take and cure 120,000 quintals of fish, which are also used for the home and West India markets, except the very first which they take early in the spring, being of an excellent quality, are sent to the Bilboa market, in Spain, where they bring a great price.—These vessels measure about 10,800 tons, and make 9,000 barrels of oil. There are also about 200 schooners employed in the mackerel fishery, measuring 8000 tons, carrying 1600 men and boys, take 50,000 barrels mackerel annually, and consume 6000 hhds. of salt. The alewive, shad, salmon, and herring fisheries are immense, and consume a great quantity of salt.

Total—Whole number of fishing vessels of all descriptions,	2,332
Measuring in tons,	115,940
Number of men employed in them,	15,059
Number of hogsheads of salt consumed,	265,370
Number of qtls. fish taken and cured,	1,353,700
Number of barrels of oil,	50,520
Number of barrels of mackerel,	50,009

There are many persons who assert that in one year there were at Labrador, and up the bay, more than 1700 vessels, besides the Bankers, but I am very confident that they are much mistaken."

ON THE POISONOUS PROPERTY OF THE BLACK CHERRY TREE.

The "Prunus Nigra" of Botanists.

The fact, that the withered leaves of the black cherry are a deadly poison to cattle, has been long known in the country; but I never recollect to have heard of any ill consequences from the use of the *bark*, a domestic remedy very much celebrated for the cure of Jaundice, &c. The following case is perfectly satisfactory to my mind, and must establish the fact of its poisonous properties beyond a doubt. On Thursday, July 23, I was called in great haste to visit a young lady who had been seized with vertigo, insensibility and syncope, followed by an alarming difficulty of respiration, in consequence of a draught of about half a pint of cider, taken from a closely stopped bottle, which was filled the evening previous with cherry bark, fresh from the tree. The symptoms were followed by a small pulse, nausea and vomiting. The more violent symptoms passed off in about twenty or thirty minutes, and before I saw her; yet I am inclined to believe, that a larger dose might have proved fatal without any return of sensibility. In this case, it returned and the patient soon recovered with no ill consequences, except extreme languor and debility.

Another young lady in the family, who had good health and constitution, took also, about the same time, a very small quantity of the contents of the bottle, and was immediately affected with faintness, giddiness of the head, and tremor of the whole body, which lasted about half an hour.

Whether the bark in these cases was more poisonous in consequence of the small sprouts, from which it was taken, being broken down and partly withered, (which is known to be the case with the leaves,) or whether such effect will be uniformly produced when the bark is put immediately into closely stopped bottles, I will not attempt to decide. I relate the facts only, and hope they may lead to farther inquiries.

The discoveries of the French chemists have recently revealed the truth, that the deleterious principle of the leaves of the cherry and laurel, the kernels of the peach, and some other vegetables, is very analogous to the Prussic or Hydro-Cyanic Acid. This acid, in its condensed form is one of the most virulent poisons in the world; snuffed up the nostrils incautiously, it produces sickness, and even syncope; a feather dipped in it and drawn across the eye ball of an animal produces instant death—[a method often resorted to by physiologists, to terminate the sufferings of animals which have been subservient to their experiments.] Two drops have been known to kill a vigorous dog in an instant. The whole body of animals killed by it, exhales the odor of bitter almonds, no disorganization or evidence of inflammation ever being discovered.

Cooperstown, August 10.

(From the Richmond Compiler.)

THE PRECIOUS METAL.

It was more than five and twenty years ago since we saw a lump of gold from the Cabarrus mine in North Carolina. It was in the possession of a citizen of that state; and he seemed to have formed very sanguine expectations of success from working her mines.—The spirit of mining, however, appeared to sleep for several years; but the discovery of larger lumps, and fresher mines, and a more extended "auriferous" district, has given a new impulse to the researches for gold. More laborers are employed; a greater capital is invested; and more ingenious processes will be discovered, for extracting the metal, than have hitherto been exerted At least nine of the counties of N. Carolina are found to contain gold.—Some of the adjoining counties in South Carolina are gifted in the same manner; and in Virginia, the spirit of mining is eagerly at work—in some few places, it may be said profitably at work; for the Fredericksburg Arena of the 3d states, that the Company, which is mining on the farm of Mr. Marshall Johnson, had obtained in the last four weeks, 1200 dwt. of native gold, worth about $1200—the average value of their mining is about $40 per day—but the amount of their expenses, or the extent of the mine, is not stated.

In this state of the business, it is interesting to have some account of the mines of N. Carolina, which may be depended upon.—We have this account in the last No. of Silliman's excellent Journal, from the pen of D. Reinhart, Esq. of N. C., addressed to Professor Olmstead, formerly a distinguished professor in N. Carolina, now of Yale College.—It appears, that for some years, the Gold was supposed to be confined to Cabarras county; up to 1823, the extent of the Gold region was estimated at only 1000 square miles—but now it is said to comprise the counties of Cabarrus, Montgomery, Anson, Mecklenburg, Guilford, Chatham, Rowan, Davidson, and very recently Wake has been added to the list. It now extends more than 100 miles to the West of the Cabarrus mine.—But the reader will be better pleased to have before him the following description from Silliman's Journal, already referred to, with Notes from Professor Olmstead:

"In the course of last summer, an old man who had worked in the mines in Cabarrus, found some small parcels of gold in Rutherford county, between First and Second Broad rivers. In the month of March last, near the same place, a few more specimens were found. Of these I purchased to the value of $37. Shortly afterwards, similar discoveries were made in rapid succession near the South mountains, and on each side of them, in the counties of Rutherford and Burk [*] So well were those rewarded who searched for gold, that in a short time, all the common laborers were engaged in digging for it; and one dollar's worth of gold to the hand per day, was thought to be only tolerable business.[†] Companies were soon formed, and lands that would not bring one dollar per acre, were sold at thirty dollars.

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[*] At the base of the Blue Ridge, on the east, lies the counties of Rutherford, Burke and Wilkes, in each of which the face of the country is very uneven, being traversed by numerous spurs of the Alleghany mountains. The county of Lincoln lies still farther east, and is less broken, but is remarkably distinguished for the abundance, variety and excellence of its iron ores, which are, to some extent, manufactured into castings, and bar iron. The South mountains above mentioned are seen on the west, from the village of Lincolnton, presenting a grand and interesting outline. All the foregoing counties lie westward of the Cahaba river, beyond which it was not supposed until recently that the gold country extended.—O.

[†] This amount is obtained by merely collecting the earth in small parcels, and washing it by hand.—O.

"The gold is got out of the small streams, and is called 'branch gold:'—Digging is generally commenced at the bed of the streams, and continued on each side to the adjacent hills. After the top earth and sand are removed, round flint rocks (quartz?) are found such as usually occur in the beds of streams.* Among this earth and sand, the gold is found in particles from a very small size to masses of two pennyweights. I understand that it was thought that no gold was to be found below this deposit of pebble and flint rocks; but lately, after penetrating the layer of flint stones and pebbles, the miners came to a bed of very fine sand, varying in thickness from six to twelve inches, and below this, another deposit of *round flint stones* and *pebbles*, which is more abundant in gold than the former.

"The quantity of the precious metal collected since the first of March, cannot be actually ascertained; but two weeks ago about one thousand hands were at work, averaging each a dollar per day.—New discoveries of gold are daily making in this county, (Lincoln,) but our mines have not as yet proved so rich as those in Rutherford and Burke before mentioned.

"Quicksilver has been found connected with the gold. I had doubted this fact, though it had been repeatedly asserted; but this day, a man who can be relied on, and has worked at one of the mines in Burke, showed me a small quantity of quicksilver, which he asserted that he obtained at the mine.†

"Many exaggerated reports are put in circulation respecting the value of the gold mines, with the view of enhancing the price of land within that region; but so fair are the real motives for enterprise that many of our most prudent and wealthy citizens are making arrangements to enter largely into the business. So eager are people to find large pieces of gold, that they hurry through the process of washing in a very wasteful manner. It is even thought that the earth which has already passed thro' their hands, would, by careful management, yield another product as great as that which they obtained in the first instance. Very little of the dust is collected, nor is the business reduced to any system. We have great need of a few ingenious Yankees, to invent labor saving and economical machines for us."

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[*] That is, probably, exhibiting the appearance of having been worn by attrition—showing that this peculiarity marks the deposits of gold here, as well as in Cabarras. See "Olmstead on the gold mines of North Carolina" in this Journal, Vol. IX. The account here given, by a gentleman not at all interested in the theories of these formations, appears to favour the opinion that they are deposits from water, and not merely) as professor Mitchell has maintained in a late volume of this work)the result of a decomposition of the associated rocks.—O.

[†] Probably this was not of native origin.—O.

THE FARMER.

BALTIMORE, FRIDAY, SEPTEMBER 25, 1829.

☞ **Charles Carroll of Carrollton**, surviving still all his compatriots who signed the Declaration of American Independence, passed happily, on Sunday last, the ninety-second anniversary of his birth day—blessed yet, on entering his ninety-third year, with good health, cheerful spirits, the love of his family and friends, and the benedictions of his country.

How fruitful of events, of the deepest interest to science and to mankind, has been that period of time which Providence has allowed him to witness, beyond the ordinary length of human life and observation! How prodigious, during that prolongation of his existence, has been the march of intellect; what wonderful facilities have been discovered for exploring and traversing the hidden treasures of the earth, and the trackless bosom of the ocean.—How numerous, in that epoch, have been the alliances and wars of various nations, and the battles and revolutions in which potentates have been crushed, old governments overthrown, and nations had their birth! What a vast store-house of recollections, founded on the experience of an individual, comprising as he does, within his personal observation, the facts and events for which even existing generations have already to search by the dim and deceptive light of history!

That the venerated individual thus spared by Providence through almost an hundred years, should be the only one living of the few devoted patriots who signed the Declaration of our national Independence, and the one who hazarded most upon the issue; that he should be moreover an undeviating encourager, and in himself a brilliant example of piety, patriotism, temperance, personal honour and cheerful submission to the will of heaven; ought surely not to be without its influence in promoting these virtues, without which neither nations nor individuals may hope for respect, prosperity or happiness.

"With these celestial wisdom calms the mind,
And *makes* the happiness she does not find."

☞ **Stock Cattle Expected.**—It has long been felt as an inconvenience that there has been no system for supplying our market with *stock cattle*, to be fattened by the *grazier*. Those who have had it in their power to carry a lot, whether large or small, of dry cattle through the winter, and to fatten them the next summer on grass, have found difficulty in supplying themselves with the lean or stock cattle, because they are not brought into our market, nor within reasonable distance, for sale.

That inconvenience is likely soon to be experienced no longer. We have before us a letter from a drover of Somerset county, Pennsylvania, who says that about the first of next month he will be down with 500 head.

We have this as the commencement of that regular system of supply at stated periods every year; which will bring the drover and the grazier fairly together—where the former may obtain a fair price, and the latter with the least trouble be supplied with the number and the kind of beasts suited to his farm and his means of fattening them.

For this commencement of a great public convenience, we are indebted, as often happens, not to an exclusively practical farmer, but to the penetration and public spirit of an opulent citizen, who does nothing by halves—who does not belong to the family of procrastinators. Those who are ever sitting cross-legged, propped up on three chairs, and saying, this ought to be done, and that ought to be done, and I wish t'other could be done;—drones, that if left alone, would still be using wooden ploughs, drawn by oxen's tails!

This gentleman happened to want a number of dry cattle, saw the irregularity and inconvenience of being supplied by sending to the west, and how much more natural and proper that they should be driven here in the midst of a great number of purchasers who might want; some few and some many. He took at once the necessary steps to accomplish it; he engaged that a fair market should be found for 300. We shall accordingly have 500 the 1st of October, and hereafter an ample supply adapted to farms of every grade. Whilst on this subject we may pertinently, but in haste, add some further remarks. The farmers of Maryland, as it seems to us, go too much and too uniformly for a *few large* staples—placing, time out of mind, their whole dependance upon—corn—wheat—tobacco—without regarding the ever varying demand, and without perceiving, for example, that sometimes when corn is low beef may be high, and that the one might be profitably converted into the other, and so of other things.

In Pennsylvania, we do not mean the parts most distant from market, for there it is most profitable to *raise* cattle—we mean the old fertile thickly settled parts of it, almost every farmer fattens a few bullocks for sale—some perhaps not more than two. So we know it is in the neighbourhood of Salem, New Jersey, one of the most independent and cash paying communities in the United States. A farmer who has not more than 100 acres of land will fatten perhaps twelve bullocks; we cannot speak with precision, but these we suppose to cost about $12 or $15, and to sell for $25 or $30, besides the manure they yield. In a word, they make their calculations not to *lose* the sustenance on which even one might be profitably prepared for market. Does the same thoughtfulness—the same habits of economical calculation and practice obtain in Maryland? No. There are hundreds of farmers, large and small, who never sent a quarter of beef to market, nay, who do not fatten enough for their own use, and yet who have or might have abundance of straw or hay to carry a dozen bullocks through the winter, and hundreds of acres of almost uninclosed range in which they would fatten for the fall market. Why is it not done? Because in some cases they never thought of it! They have not been accustomed to it; they raise their cattle instead of selling their calves, and buying dry cattle at four years old—and finally because there has been no where below Frederick county a regular supply of stock cattle. The success of the present experiment will obviate that difficulty in future—the whole subject may be enlarged upon in this paper at another time when we are not so hurried.

☞ **The Crop of Indian Corn**, though more abundant than usual, appears to be less so than was anticipated, since it has been stripped of its redundant habiliments and exposed naked to the view—the idea is, that the strength of the land was put in full requisition by weather uncommonly favourable for that purpose, and was exhausted in a great measure in the production of *stalk* and *blade*, and that when the time arrived for it to perform its last function, that of perfecting the farinaceous part of the product, the remaining strength of the land was not equal to the task of completing, covering and filling the ear. It is to be apprehended too that a good deal may be caught by the frost. After all, the crop will be comparatively a good one, and were the people only out of debt and would they practise all rational economy, surely no land under the sun is more abundant with all that should be esteemed the solid comforts of life—with the means at hand to make leather, wool, cotton, and flax—beer, cider, milk, butter, and corn enough and to spare for poultry, hogs, and cattle, and all but *useless horses*; the farmer, if let alone, might live content if he could only be saved from vicious legislation, for he would scarcely have need of any government.

P. S. A candidate for the legislature, in Talbot county, advertises that he is for reducing the *per diem* and lessening the number of members. We shall see, if the proposition be made, whether it will be *fairly met*. One thing is very certain, that were the *per diem* reduced to two dollars, corresponding with the price of produce, it would work a double saving.—The sessions would not be so long by a month!

☞ **Early Frost.**—A letter dated Campbell's Station, Tennessee, September 8, says "the tender vines were last night killed by frost, and the wild pigeons have arrived in small numbers." (It will be borne in mind, that pigeons take up their *winter quarters* in the southern and south western states.)

We have had several instances of hoar frost in the vicinity of Baltimore, within the last two weeks, and the weather has been generally quite cold. Last Friday morning we saw a sight never before witnessed by us in the middle of September. Standing on the hill by St. Paul's church, at about 8 o'clock, our notice was attracted by the perpendicular columns of white smoke that ascended apparently from every chimney in the city to a height equal to what we ever saw attained in the clearest sky and the coldest weather of a winter morning Throughout, this year has been one of singular seasons. The winter was uncommonly severe; the spring late but otherwise remarkably favourable to vegetation; the summer so intermingled with rain and sunshine, as to give a growth to vegetation, hardly ever surpassed; and the autumn, so far, unusual for its early frosts, and for peculiar qualities for the early maturity of the fruits of the earth. But although the pigeons have already began to go into winter quarters, we have not observed the more certain heralds of winter--the wild geese from the northern lakes flying to the tune of "*winter is coming.*"

Extract—*Hopewell*, (*N. C.*) *Sept.* 1. 1829.

A great number of our best farmers here have turned their attention to hunting gold, and so far have been very successful. There are new discoveries making every day, and I have no doubt but there is found in this county, viz: Mecklenburg, one thousand dollars worth of gold per day on an average. Respectfully yours, W. I. W.

[We have reason to think there are some in North Carolina who have not yet hit a vein.]

Latest Foreign News.

Since our last, intelligence has been received from Europe to the 12th August. A complete change had taken place in the French Cabinet, and the new ministry was considered adverse to the interests of the Liberals. There is not much news from the seat of war. The Russians were passing the Balkan, and these mountains were no longer considered a barrier. A Paris paper of August 6, has the following remarks relative to the harvest:

"The accounts from different parts of the kingdom, as well as from several foreign countries, relative to the prospect of the harvest, are very favorable. In the environs of Saumur the crops are extremely heavy and in good order. Letters from Catalonia statet hat the corn harvest will be most abundant and the price of grain is expected to be low. A letter of the 17th ult. from Christiana says: —A long continued drought has been succeeded during the last month by plentiful showers, which have removed all our apprehensions for the harvest. The price of grain, however, particularly rye, continues to rise."

General Lafayette is at present with the greater part of his family at Chavaniac. From thence he will proceed to Dauphiny on a visit to his granddaughter, the lady of M. Augustin Perier.

Foreign Tobacco—By a notice published in the French papers, it appears that the first *concours* for the purchase of Tobacco will be opened in February or March next. The day of the opening will be fixed in all November. The Administration will judge by comparison of the samples representing the different qualities,--Judges appointed by one or more of the Chambers of Commerce will assist in the comparison. It is recommended to merchants to exhibit none but the best leaf, fit for manufacturing by the Regie, and to discard such Tobacco as is weak, and calculated to prevent their offers being accepted.

Markets.

From a Havre Price Current, Sept. 10.

Cotton.--In consequence of the heavy arrivals mentioned in our last, we have to notice a decline of one centime on the middiing and inferior sorts of U. S. short staple, and 2 or 3 on Brazils.—The sales from the 1st to the 8th, comprise 2917 bales, including 1424 Uplands, Alabamas, &c. at 80 to 96¼—414 Louisiana, 86 to 108; 101 do. damaged, by auction, 77 to 97. Imports same time, 2159 bales U. S.

About 100 bbls. good Am. Flour have been retailed at 40f, but the demand is very limited, and there are now no purchasers at that price. No sales of Rice have been made—the demand having totally subsided.

Liverpool Markets, Aug. 11.

Demand for Cotton last week very moderate; sales 9380 bags, without alteration in prices; S. I. 10 a 14½d.; Stained, 5¾ a 9d.; Bowed, 5 a 6¼d; Orleans, 7 a 7¼d., and 7½ a 8d; Mobile 5 a 5¾d.; market on Saturday and Monday quiet; sales of 300 bags. Rice, only 20 casks sold at 18s 6d.

Liverpool Corn Exchange, Aug. 11.

Supplies of foreign grain this week very small. Duty has been paid upon about 1400 qrs. foreign wheat, but notwithstanding the probability of an immediate increase in the duty, some few parcels have again been placed under the King's locks: Indian Corn continues to find a retail demand, and without variation in prices (31s 6d a 34s.) Several parcels American Flour bave been sold without submitting to any reduction.

Prices Current in Boston, September 18.

Apples, best, bbl. —— a ——. *Beans*, white, bushel .90 a 1.00. *Beef*, mess, bbl. 10.50 a 11.00; cargo No. 1, 9.00 a 9.50; No. 2, 8.00 a 8.50. *Butter*, inspected, No. 1, new, lb. .13 a .15. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 6.00 a 6.25; Genesee, 5.87 a 6.25; Rye, best, 3.50 a 3.75. *Grain*, Corn, bu. .60 a 62; Rye, .63 a .65; Barley .67; Oats .42 a .45. *Hogs'-Lard*, 1st sort, new, lb. .8. *Pork*, clear, bbl. 16.00 a 17.00; Navy, mess, 13.00 a 13.00; Cargo, No. 1. 12.50 a 13.00. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .33 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool*, Merino, full blood, washed, .32 a .34; do. do. unwashed, .18 a .23; do. three-fourths, washed, .28 *a* .30, do. half blood, .24 *a* .25; do. quarter, washed, .22 *a* .25; Native, washed .20 a .22; Pulled, Lambs', 1st sort, .34 a 36; do. 2d sort, .22 a .25; do. spinning, 1st sort, 27 a .30.

Prices Current in Philadelphia, September 22.

Bees-wax, yellow .23 a .24; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10.50 a 11, prime 9 a 9.50, cargo 7; *Butter*, No. 1, .7½ a .8, No. 2, .5 a .6; *Cotton*, New Orleans .10 a .12, Upland 9. a .10, Tennessee 9. a .10, Alabama 9. a 10; *Feathers*, South. .32 a .34, West. .32 a .34; *Flax* .7½ a .8. *Flour*, sup. 5.75, fine, 5.25 a 5.50; Rye 3.62½ a 3.75; Cornmeal, hds. 11.50 a ——, bls. —— a 2.25; *Flaxseed*, cask —— a ; bu. 1.06 a 1.08; *Grain*, Wheat 1.00 a 1.05; Rye .50 a.60, Corn l. c. white, .47 a .48, l. c. yellow, .49 a .50, u. c. round, .53 a .54; Oats .25 a .30, Barley, Pa. .— a .—; do. East. .55 a .60; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia .8 a .9, Western .8 a .8½; *Hemp*, 200 a 210; *Lard*, .6 a .8; *Oil*, linseed, .68 a 69; *Pork*, mess, 13.25 a 13.50, prime 10 a 10.50; cargo 10.50 a 11.00; *Rice*, 2.50 a 3.00; *Tobacco*, Kentucky ¦.4 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .26 a .28, half blood .28 a .31; three quarters blood .31 a .32, full blood 34 a .38; unwashed, generally 10 cents less, according to quality.

NOTICE.

The Subscriber has just received from the Messrs. Landreth's, a fresh assortment of Cabbage Seeds—Early York, of Messrs. Landreth's raising, and also imported.—Also, just received, Orchard Grass Seed, probably of as good quality as can be had in this city—and likewise, 200 bushels of Clover Seed, of excellent quality, from Penn's Valley, Pa.; Ploughs, Wheat Fans, Straw Cutters, Cornshellers, &c. &c. on hand, as usual.

JONATHAN S. EASTMAN.
No. 36 Pratt street.
Between Charles and Hanover streets

ALMANAC.

1829. Sept—Oct.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 26	6	4	5	56	11	52	4	37
Sunday,........ 27	6	5	5	55	11	50	sets	
Monday,....... 27	6	7	5	53	11	46	6	24
Tuesday,...... 29	6	8	5	52	11	44	6	56
Wednesday,.. 30	6	9	5	51	11	42	7	28
Thursday,.... 1	6	11	5	49	11	38	8	4
Friday,......... 2	6	12	5	48	11	36	8	44

New Moon, 27th, 8 h. 56 m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There is a small advance in Howard street flour owing to the small quantity coming in--the price from wagons is $5.50; from stores, $5.62½ to $5.75. We have heard of no sales of moment at the latter price; but holders are firm in the expectation of obtaining it. There is no change in wheat. Corn is scarce and in demand at quotations. Oats are very scarce and a considerable advance has taken place in the price. *Live Stock.* There is a good deal of beef on the hoof in market, but no material change in price.

Tobacco.--Maryland, ground leaf, $6.00 *a* 13.00—seconds, ordinary, 4.00 *a* 6.00—red, 4.00 *a* 6.00—fine red, 8.00 *a* 13.00, for wrapping 7.00 *a* 12.00—Ohio, common, —— *a* ——.—good red —— *a* ——.—fine yellow 2.50 *a* 3.00.—Rappahannock, 3.50 *a* 4.00—Kentucky, fine 4.50 *a* 7.00—wrapping, 4.50 *a* 7.00.

Flour—best white wheat family, $6.25 *a* 6.75*—super. Howard st. 5.62½ *a* 5.75; city mills, 5.00 *a* 5.25 Susquehanna, ——. Corn Meal, bbl. 2.37½—Grain, best red wheat, 98 *a* 1.00;—best white do. 1.06 *a* 1.10; ordinary to good, .90 *a* .95—Corn, white, .42 *a* .43; yel. .42 *a* .43—Rye, —. *a* .45—Oats, .33 *a* .36—Beans, 1.10 *a* 1.15—Peas, .60 *a* .65—Clover seed, 3.25 *a* 3.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—Barley, .45 *a* .50—Flaxseed, .75—Cotton, Virg. .9½ *a* .10—Lou. .11 *a* .12—Alab. .9 *a* .10—Mississippi .10 *a* .12—North Carolina, .8 *a* .9—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .22½ *a* 23—in bbls. .24 *a* 25½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22--three-quarter, .25 *a* .30--full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* ——; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, —— *a* 5.50—Herrings, No. 1, bbl. 3.75 *a* 4.00; No. 2, 3 50 *a* 3.75—Mackerel, No. 1, 5.37½ *a* 5.50; No. 2, 4.75; No. 3, 3.75—Bacon, hams, Balt. cured, .9 *a* .10; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .30 *a* .31—Plaster Paris, cargo price per ton, $4.00, ground, 1.25 bbl.—Prime Beef on the hoof, $4.50 *a* $5.00.

* Six dollars and seventy-five cents by the single barrel, for Ellicotts' Patapsco white wheat family flour.

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Complete Treatise on Horses, by an Old Officer of the French Cavalry; translated for the American Farmer, continued; chap. 15, of Exercise and Repose; chap. 16, of Repose and Action; chap. 17, of Different temperaments—Hay Crop in Norfolk, Va.—On the Culture of the Potato—On the Culture of the Sweet potato, and its most valuable varieties, by J. Lowel, of Mass.—Sale of Sheep near Philadelphia—Cattle Cured—Report of the Sale of Beef Cattle, Store Cattle, Sheep, and Swine, in the Brighton market, Mass.—Morning Star, inquiry—A Native Grape—Preservation of Apples—Rules for making Good Butter—Inventions for the Relief of Sucking mothers—A Character—*Poetry*, The Butterfly—Wild Pigeons—Camel Fights—Fisheries in Massachusetts—On the Poisonous property of the Black Cherry tree—Gold Mines of N. Carolina—Editorial: Charles Carroll of Carrollton; Stock Cattle; The Crops of Indian Corn; Early Frost—Latest Foreign News—Advertisement—Prices in the Boston, Philadelphia and Baltimore Markets—Almanac for the week.

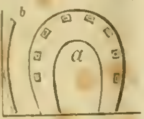
Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

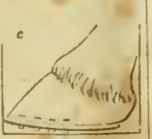
AGRICULTURE.

(From Loudon's Encyclopædia of Agriculture.)

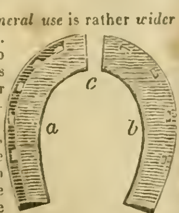
THE SHOEING OF HORSES.

The importance of the subject of shoeing to the agriculturist, is sufficiently attested by the immense number of inventions which the ingenuity of philosophers and artists are every day devising, to render the system complete. Almost every veterinary professor has his favourite shoe; and we find one of the most ingenious of the present day endeavouring to force on our notice, and introduce into our stables, the French method; which, with the exception of the mode of nailing on, White observes, is the very worst he ever saw. The French shoe (*a*) has a wide web towards the toe, and is concave above, and convex below (*b*,) on the ground surface, by which neither the toe nor heel touch the ground (*c*;) but the horse stands pretty much in the same way with an unhappy cat, shod by unlucky boys with walnut shells. But as Blaine observes, in reference to these inventions, "no one form of foot defence can be offered as an universal pattern." It is, he continues, plain that the principles of shoeing ought to be those that allow as little departure from nature as circumstances will justify. The practice, also, should be strictly consonant to the principles; and both ought to consist, first, in removing no parts but those which, if the bare hoof were applied to natural ground, would remove of themselves. Secondly, in bringing such parts in contact with the ground (generally speaking,) as are opposed to it in an unshod state: and above all, to endeavour to preserve the original form of the foot, by framing the shoe thereto; but never to alter the foot to the defence. The shoe at present made at the forges of the most respectable smiths in the cities and large towns throughout the kingdom, if it have not all the requisites, is, however, so much improved on, that with some alterations, not difficult either to direct or adopt, is the one we shall hold up as the most eligible for general shoeing. It is not that a better might not be offered to the notice; and in fact such a one we shall present to our readers; but so averse are the generality of smiths to have any improvements forced on them, and so obstinately determined are they to adhere to the forms handed down to them by their forefathers, that their stupidity or malevolence, or both, frequently makes the improvement itself, when seemingly acquiesced in, a source of irreparable injury. It is for these reasons we would recommend to agriculturists in general, a modified shoe of the common stamp.



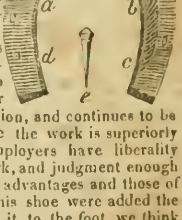


The improved shoe for general use is rather *wider* than what is usually made. Its nail holes (*a*,) extend no further towards the heels than is actually necessary for security; by which the expansion of these parts is encouraged, and contraction is avoided. To strengthen the attachment, and to make up for this liberty given to the heels, the nails should be carried around the front of the shoe, (*c*.) The nail holes, on the under or ground surface of the shoe (*a*,) are usually formed in a gutter, technically called the *fullering*; but in the case of heavy treading powerful horses, this gutter may be omitted, or if adopted, the shoe in that part may be steeled. The web, should be quite even on the foot or hoof surface, (*b*,) and not only be rather wider, but it should also have rather more substance than is common: from half an inch to five-eighths in thickness, according to circumstance, forms a fair proportion; when it is less, it is apt, in wearing, to bend to pressure and force out the clinches. A great error is committed in setting shoes out so much wider than the heels themselves: this error has been devised to correct another, which has been that of letting horses go too long without shoeing; in which case, if the heels of the shoe were not too wide originally, as the foot grew, they became lost within the heels; and thus bruised and produced corns: but as we will suppose that few will wish to enter into a certain error to avoid an uncertain one, so we recommend that the heels of the shoe should stand only wide enough to prevent the expansion of the quarters pushing the heels of the feet over the outer edge of the heels of the shoe: for which purpose, if the iron project rather less than a quarter of an inch, instead of three-eighths, or even half an inch, as it frequently does, many advantages will be gained. Whoever attentively examines a shoe *well set off* at the heels, as it is termed, will find only one-third of its flat surface protecting the heels; the remainder projects beyond, and serves but to form a shelf to lodge dirt on; or as a convenient clip for another horse to tread on; or for the wearer to cut his own legs with; or to afford a more ready hold for the suction of clayey grounds to force off the shoe by. The heels of the common shoe are likewise not in general sufficiently long for the protection of the foot; and which defect, more than a want of width, causes the tendency to press on the crust of the heels. It is further to be observed, that if the decreased width of the outer standing of the heels, and the increased width of the web, should make the inner angle of the shoe heel in danger of interfering with the frog, the corner may be taken off. In forging this shoe, it may be bevelled, or left plane on both surfaces, or rather nearly so, for it is usual with most smiths to thin it in some degree towards the inner edge. This shoe is applicable to most feet, is easily formed, and, as such, in country places, is all that can be expected.



The injurious effects of bad shoeing would only be required to be known to excite every endeavour to obviate them; and there are some circumstances in the more common shoes of country smiths, that ought to be impressed on the mind of every agriculturist, and guarded against by every one who possesses a horse. It is too frequently observed that the ground side of their shoe is convex, and that the inward rim, when the foot is on the ground, is the lowest part, on which it is evident the weight must first press; and by which pressure the crust will be forcibly thrust on the extreme edge of the shoe; and the only resistance offered to its being forced from it, depends on the nails and clinches, instead of its just application to the ground, and the support derived from the uniform pressure of the whole. Every shoe should, therefore, be perfectly level on its ground surface: nor should any shoe be put on that has not been tried on a *plane iron* purposely made for such trial; which irons are kept in some smithies, but are absent from too many. The substance of the shoe should be the same throughout, forming two parallel lines of upper and under surface; in plain language, the heels, instead of being clubbed, as is too frequent, should be the exact thickness of the toe. Neither should the width at the heels diminish in the proportion it usually does; on the contrary, for a perfectly formed foot, the web should present an uniform width throughout.

Varieties in form of foot, differences in size, weight, and uses of horses, will necessarily make deviations in the form and substance of shoes. The very shoe recommended, may be considered as a variation from what would be immediately necessary, were the feet generally perfect; but it is to be considered that there are but very few feet but what have undergone some unfavourable alteration in their form, which makes them very sensible to concussion. It is for this reason, therefore, that it is recommended, that a shoe be used, for general purposes, somewhat wider and thicker than the common one. In weak, tender, flexible feet, it will be found particularly advantageous; and here the benefit of wide heels to the shoe will be most apparent. Good as the roads now are, yet most horses are occasionally subjected to travel on bad ones; some know no other: to these, the addition of one, or at the most, two ounces to each shoe, is nothing; but the ease to the horse and its superior covering, as well as support, is incalculable. In very young, very light, and very firm feet, the width and substance may be somewhat diminished at pleasure, and particularly in situations where the roads are uniformly good; but a very long and extensive experience has assured us, that the shoe pourtrayed, is one well calculated to meet the ordinary purposes of travelling, and the present state of the art of horse shoeing.



An improved shoe on the present plan, would be found to unite all the perfections of the modern English improvements, with some derived from our neighbours the French. What has since been called a *seated shoe*, was introduced by Osmer; but from the obstinacy and ignorance of smiths, as it could not be brought into general use, it became little thought of, until revived by Clark, of Edinborgh; by whom it was patronized and recommended. It finally was taken up by Moorcroft, and has ever since attracted some attention, and continues to be forged in some shops where the work is superiorly done; and where the employers have liberality enough to pay for such work, and judgment enough to discriminate between its advantages and those of the common shoe. If to this shoe were added the French mode of fastening it to the foot, we think the improvement would almost shut out all others. On examining the figure, it will be seen that this shoe presents a flat surface opposed to the ground; (*a*,) but a concave one towards the sole, (*b*;) but that this concavity does not begin, as in some seated shoes, near the outer edge, but embraces two-thirds only of the web, leaving by this means a sufficient surface for the crust: but this bevelling is not intended to reach the heels; it stops short of them (*c*,) leaving the web at this part plane for the heels to rest upon. The great advantages of this seating are, first, that as the crust rests on a flat surface instead of an inclined plane, as most of the common forged shoes presents, so its position is maintained entire, and the inclination to contraction is in a great degree avoided. The nailing on of this shoe we would recommend to be after the French method, which consists in conical nail holes, punched with a square countersink, (*d*,) into which are received conical nails (*e*,) which exactly fill up the countersink; by which means so long as any part of the base of the nail remains, the shoe must be held firmly on, and which is not the only advantage gained; for the nail holes being obliquely formed, and at some distance from the outer rim, act less detrimentally on the crust of the foot.

To prepare the foot for the application of the shoe, is also an important consideration. Avoid taking off more than one shoe at a time; otherwise the edges of the crust become broken away. Observe that the clinches are all carefully removed. Let the rough edges of the crust be rasped away; after which, the sole should be pared throughout, until a strong pressure with the thumb can produce some yielding: too strong a sole tends to heat and contraction, too weak a one will not require paring.—In this paring, imitate the natural arch of the sole as much as possible. The line of concavity should not begin, as it usually is made to do, from the extreme margin of the foot, but should begin from the inner line of the crust only; by which means the crust, or outer wall of the hoof, will have a firm bearing on the flat surface of the shoe. Let no heated shoe be applied to correct the inequalities that may be left, unless it is for a moment, only to observe, but not burn them; but still more carefully avoid putting a plane shoe on an uneven foot. The portion of sole between the bars and quarters should be always pared out as the surest preventive against corns. The heels also should be reduced to the general level of the foot, never allowing their hardness to serve as an excuse for being left; neither suffer the inner heel to be lowered more than the outer. After all the rest has been done, the frog should be so trimmed as to remain on an exact level with the returns of the heels, and no more. The custom of taking away the point or angle of the horny inflexions of the heels, under the false term of opening the heels, is to be carefully avoided. Let all these operations be performed with a drawing knife. The butteris should never be allowed to come near the foot of any horse but the largest and coarsest of the cart breed.

(To be continued.)

AGRICULTURAL SOCIETY OF SOUTH CAROLINA.

August 19*th*, 1828.

On motion—*Resolved*, "That the thanks of this society be presented to Mr. *Horry*, for his very able and scientific Address delivered this day, and that a copy be requested for publication," which motion being seconded, was unanimously agreed to.

Extract from the minutes.

J. H. READ, Secretary, p. t.

AN ADDRESS,

Delivered in Charleston, before the Agricultural Society of South Carolina, at its Anniversary Meeting, on Tuesday, the 19th August, 1828; by Elias Horry.

Mr. President and Gentlemen:

It is with great diffidence that I address you on the present occasion; and this proceeds from the importance of the subject, and my inability to discuss it according to its merits. I shall, however, in obedience to your pleasure, make the attempt, and trust to your indulgence.

Of all the arts, Agriculture is doubtless the most useful and necessary. As a science, it has always been considered the most important to the general welfare and interest of mankind, and, therefore, deserves the peculiar attention of every nation. With it all other sciences are intimately connected; and in all ages, and more especially in modern times, it has been considered the best test of freedom, and of civilization. Agriculture is the foundation of manufactures, since the productions of nature are the materials of art. Commerce too, proceeds from agriculture, for the different climates of the earth having caused its productions to be various; exchanges suitable to the wants of its inhabitants are necessarily made. Men thereby lend their assistance to their fellow men, and a traffic is formed between nations, each rendering one to the other mutual benefits. Hence, commerce is founded through the medium of agriculture. An intercourse becoming constant, mankind gradually becomes civilized: and those nations have ever been deemed most humane and wise as to their laws and institutions—most improved as to science, literature and arts—most polished as to manners, and refined in all the intercourse of social life—which have brought their agriculture to the greatest improvement, and have most successfully combined it with commerce.[*]

It was my intention to have taken an historical view of agriculture, and its connection with commerce and manufactures, from the earliest ages to the present time. But however profitable the research would have been to myself, I found that the attempt would be a trespass on your patience; and that, although the subject may be worthy of a treatise, it could not be brought within the limits of an address. After the subversion of the Roman empire, the Feudal system became established every where, and Europe sunk into barbarism. Not only the arts of elegance, which minister to luxury, and are supported by it, but agriculture, as it had been practised by the Romans, and many of the useful arts, without which life can scarcely be considered as comfortable, were neglected, and in some instances lost. The human mind, uncultivated and depressed, was cast into profound ignorance. This state of things continued till towards the close of the eleventh century. The Crusades undertaken to rescue the Holy Land out of the hands of Infidels, by bringing nations together, had a tendency to enlighten the human mind; to rouse Europe from the lethargy in which it had long slumbered, and to introduce a change in government and in manners, and in favor of the arts. The Crusaders in their progress, marched through countries better cultivated and more civilized than their own, and thereby became acquainted with the agriculture, the productions, the arts, and the more polished and improved manners of other countries, and, particularly, of the east. Those who lived to return to their homes, carried with them their acquirements; and these had an immediate influence on the state of property, of government, and of power in the different kingdoms of Europe. Charters and immunities were granted to cities and corporations, whereby a great body of people were released from servitude, and from all the arbitrary and grievous impositions to which their former vassalage had subjected them. Towns became small republics, governed by known and equal laws, and liberty was deemed an essential and characteristic part in their constitutions.

This happy change was made to extend also to the country as well as to the cities, and roused all men from the inaction of their former wretched state. Industry revived, population increased, and commerce and agriculture became objects of attention. The husbandman, master of his own industry and secure of reaping for himself the fruits of his labour, became the farmer of the same fields where he had formerly toiled for another. But at this period literature was not, and could not be diffused. The art of printing was not discovered till during the fifteenth century; and what was taught and written, was composed in the Latin language, on metaphysics chiefly, and on subjects which rather confused than instructed the understandings of men. Happy, however, would it have been for Europe; happy would it have been for mankind, if these improvements and changes which took place after the Crusades, could have been allowed to progress, aided by the art of printing, invented at a subsequent period. But Europe and mankind were doomed for centuries, to a far different lot. Constant and desolating wars were to be waged: wars for aggrandizement and for conquest; for making all men to be of one mind in matters of religion; for fixing and establishing equal balances of power; civil wars arising from ambition, and those carried on for the attainment of empire; and wars waged by the oppressed in the sacred cause of liberty. But it is not my intention or my province to discuss any of those topics, or even to say any thing relative to the discovery of America. History has recorded those events, and will carry the name of Columbus to the latest posterity. These wars completely arrested the progress of agriculture, and the art retrograded. Italy was ever considered well adapted for every species of agriculture; possessed fine meadows, a fertile soil and benignant climate. There agriculture was still attended to, particularly in Lombardy; but not in the spirit of former times. In many parts of Europe, owing to those wars, lands were considered the least costly of all gifts. This accounts for the large grants which were made to monasteries; and it is due to the monks, at least, to say of them, that a great part of Europe owes agricultural restoration to them. The culture of arable lands became every where imperfect. In England, during the reign of Henry VIII. the country was depopulated, by abandoning tillage, and throwing land into pasture.—Good lands rented for one shilling the acre; meadow rented for double the price of arable land: but after a time, landholders found it necessary to augment their incomes, which were growing more and more inadequate to their luxuries. This caused them to give more attention to agricultural concerns, and to perceive that a high price for produce, against which their less enlightened ancestors had been used to clamour, would bring much more into their coffers than it took away. They, therefore, drew their attention to tillage, which rewarded their expectations, and their lands rose in value.[*]

During the reign of James I. considerable improvements were made in most arts, and also some in agriculture, which was beginning to be esteemed the most beneficial of any; and a number of books and pamphlets treating on husbandry were then written. Books on agriculture were also published every where on the continent of Europe; but notwithstanding these publications, the improvements still progressed by such slow degrees, that towards the close of the seventeenth century, at the time of the first settlement of South Carolina, and when, in France, the revocation of the Edict of Nantz, by Louis XIV. in 1685, caused many of the French protestants, the ancestors of a respectable portion of our community, to seek Carolina as an asylum from cruel and bigotted oppression; England and every other kingdom and state in Europe had not brought their agriculture to the perfection at which it had arrived among the nations of the east, particularly in China, where drill husbandry had been long known, where all the different kinds of manure had long been carefully collected, and skilfully distributed; where the lands were irrigated and drained in the most perfect manner, and abundant harvests reaped. At that time, in England, and over most of Europe, the broad-cast husbandry was alone practised; and draining and irrigation were unskilfully performed. At last, however, several eminent and learned men communicated their researches to the world, and laid the foundation of an improved state of agriculture.[†]

The most important improvement was made by Mr. Jethro Tull, who was educated at one of the English universities, and admitted a Barrister of the Temple, towards the commencement of the eighteenth century. During a tour of Europe, the attention of this gentleman was particularly directed to agricultural subjects. On his return to England from France and Italy, he took a farm in Berkshire, in order to pursue his plans of an improved cultivation. His grand principle was, "That labour, continual stirring the earth, and arrangement," would supply the place of manure and of fallowing; and raise more grain at a less expense. In 1731, he published "a Specimen of his System,"—and in 1733, "an Essay on Horsehoeing Husbandry,"—designed to introduce a new method of culture, whereby the produce of land will be increased, and the usual expense lessened. The work also describes the instruments to be used agreeably to his new plan. What has been long called, and known to us by the name of "Dull Husbandry," is founded upon this last work of Mr. Tull, and includes every method of sowing or planting seed in small furrows, drills or openings, in rows, at different distances, according to the nature and circumstances of all the soils and the crops, by suitable machinery, and in which the after-culture is performed by the use of "the horse-hoe," of Mr. Tull, or other hoes or tools of a similar kind, or acting on the same principle. Mr. Tull did not live to see the effects of his system in England, after a fair trial of a number of years, for he died in 1740. His method of culture made but slow progress in England, because the farmers were attached to their old customs, and those who opposed the new system were industrious to prevent others from attempting its trial. But it met with different success in France, for as soon as copies of the book were there received, a translation was undertaken at one and the same time by three different persons of consideration, without the knowledge of each other. Afterwards two of them put their papers into the hands of the third, Mr. Du Hamel du Monceau, of the Royal Academy at Paris, who published a treatise on the principles of Mr. Tull. In this treatise Mr. Du Hamel made a comparison between the old method of husbanery and the new. By his calculation the profits arising from the new, were considerably more than double those of the old. According to him, the profits of twenty acres of land, for ten years, by the old method amounted to 3000 livres, equal to $562 our money, and by the new method to 7650 livres, equal to $1434, making the prodigious difference of $872 in favor of the latter.

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[*] See Note A. at the end.

[*] See Note B. at the end.

[†] See Note C. at the end.

Mr. Du Hamel's book met with a very general circulation, and that, together with the improved editions of Mr. Tull's work, afterwards published, in a great degree tended to form and establish, notwithstanding the futility of some of his positions, particularly that of manure being of no consequence, a new era in the history of agriculture, on the continent of Europe as well as in England. But the same system, nearly, had been, for ages, almost the only one known and practised in Asia. In parts of India, it has always been used in the culture of almost every kind of grain, planted in that extensive and fertile country, and in the growth of hemp, tobacco, cotton, and even of the castor-oil plant. It is asserted also on the authority of travellers, and from the best sources of information, that in Arabia, China and Japan, where the cultivation of the earth has undergone no changes for thousands of years, they not only drill, but dibble corn of every description. The antiquity, therefore, of the system must be admitted; though it cannot be denied but that Mr. Tull, who was a man of letters, and therefore, most probably, had read respecting the agriculture of the east, introduced it into England, and thence it was extended to the continent of Europe and to America. My opinion is, that so far as extends to the culture of rice, and of indigo when a staple, and also of some of the small grains, the drill husbandry has, mostly if not always, been practised in South Carolina.

I have never heard, except for experiment, of rice being planted otherwise than in rows or trenches.—I can remember that indigo was thus planted; and I am induced to believe that Mr. Tull's system was as generally known in the British American Colonies prior to our revolutionary war, as in most parts of England, and that it came into practice in them sooner or more generally than in that country; for prior to the revolution most of the sons of wealthy agriculturists particularly those of the south, were educated in England, and on their return home, they brought with them such means of information and of improvement as would render the most essential services to their native country, and the best written books and treatises imparting information on all branches of knowledge.[*]

Notes.

A.

Agriculture takes its origin in the remotest antiquity. All nations, ancient and modern, have regarded it as the basis of population, and of their prosperity. Mankind, however, has always at first shewn a disinclination to exchange the savage, for civilized life, and the introduction of agricultural pursuits among a savage people has never been accomplished without some extraordinary interposition.

In the early stages of society, after man had passed the toils and hazards of the hunter's state, he must have found in the pastoral also—although he became less exposed to dangers and to hardships, and was more certain of his subsistence—that his herds and flocks were liable to innumerable accidents, and that he and they might at once be reduced to the miseries of famine. It became natural, therefore, for him to think of means, whereby he may with more certainty subsist, and procure the neccssarias of life. His attention would immediately be turned to the earth, and in obedience to the command of the Almighty Father of the universe, he would proceed to cultivate it; and experience would prove to him, that by due cultivation, the soil would produce in abundance fruit and grain for his nourishment; but that without his labour, the natural fertility of the soil, the warmth of the sun and the revolutions of the seasons would be in a great measure unavailing.

The agriculture of the earliest ages must have been extremely simple; for the progress of the art has ever been slow, and in most countries it has been by degrees almost imperceptible. The implements for opening and turning the soil, must have been at first, of the rudest kind; and they could not have been made without some knowledge of the metals.

The records of holy writ, however, inform us, that before the deluge, the art of forging metals had been discovered, and that there were workmen in brass and iron. Agricultural instruments of some kinds, made of one or both of those metals, might, therefore, have been in use before that great event; and even a plough might not have been unknown to the antedeluvians. Agriculture once effectually commenced may proceed of itself, under the impulses of its own creation. An increase of population will require and occasion an increase of supplies.—Necessity will force industry; and industry will find inducement in the advantages incident to the acquisition of property in the civilized state. Thus a progressive agriculture, and a progressive population ensue, and the one becomes the natural consequence of the other. Agriculture may exist and progress to a certain extent, even under a bad government, subject to tyranny and oppression. But that extent would be no further than to supply actual wants, and to sustain the population of the country. The labour to accomplish this would most probably be performed by one class or caste of society. In a country so situated, agriculture would not improve after a certain period: the end being accomplished, improvement would cease. Such a country would also be occasionally subject to want and to misery. The husbandman would naturally cultivate the grain which the earth would yield abundantly with the smallest labour;—and, whenever from the vicissitudes of seasons his crop should fail, he and all who depended on his exertions would inevitably be reduced to famine.

Observations applicable to agriculture and to those countries situated in the finest climates, and which possess the most luxuriant and productive soils, may be carried to a very great extent; especially if they be applied to their laws for the protection of property, and the manners and customs of the people. But reflections on these topics, I shall consider as foreign to my present purpose.

B.

The exportation of corn had been prohibited; and it was not till the 5th year of Elizabeth's reign, that it was allowed; and Camden observes, that agriculture, immediately after that permission was granted received new life and vigour. But during the next reign, Mr. Hume, in his history, says that the nation was still dependant on foreigners for daily bread; and there was a regular importation from the Baltic, as well as from France, and if it ever stopt, the bad consequences were sensibly felt. Sir Walter Raleigh computed that two millions (of pounds sterling, I suppose,) went out at one time for corn.

C.

The publication of the "Anatomy of Plants," by Grew, contributed to enlarge the views and extend the inquiries concerning the nature of vegetation and the food of plants. After the restoration of Charles II. Evelyn inspired his countrymen with a desire of reviving the study of agriculture. He was followed by Ducket, the learned Ray, Dugdale, and several other authors; all of whom aided in the recovery of the art of cultivation, and some improvements were introduced by them The Royal Society, which had been established in 1662, now contributed still more to its advancement, and served as a focus for collecting and recording valuable materials on the nature of vegetation, and the principles of agriculture, as well as other subjects. About the commencement of the last century, additions and improvements were made. Bradley reduced the facts on vegetation into a more systematic order; and Miller contributed very materially, by the publication of his dictionary, as well as of his other valuable works. This dictionary was, and now is, considered the most celebrated work of its kind, and may be said to have laid the foundation of all the horticultural taste and knowledge in Europe, and afterwards in America. The last edition of this great work, published during the life of the author, was that of 1768, and in it the nomenclature and style of Linnæus was followed, instead of that of Tournefort. Linnæus has remarked, that Miller's was a botanical as well as horticultural dictionary; and it is admitted that it proved a powerful means of introducing a taste for scientific botany, amongst those who at first had recourse to it merely as cultivators.

D.

Besides, in most of the libraries formed and collected by gentlemen prior to the revolution, copies of Mr. Tull's essay were generally to be found; and though the horse-hoe was not used, on account of it being impracticable to do so at that time; yet the drill system was pursued with other hoes, deemed more suitable to the soil, and with ploughs and other implements.

(To be continued.)

GRASSES.

Columbia, S. C., September 8th, 1828.

J. S. Skinner, Esq.

Dear Sir,—In your most interesting paper, the American Farmer, I perceive in No. 23, vol. 10th, 22d of August last, an article on artificial grasses adapted to the southern states, signed D., dated Richmond, Va., July 28th, by which it appears that Mr. D. has received a letter from a "distinguished gentleman of South Carolina, lamenting the total destitution in his section of the country of all valuable grasses," &c.

This gentleman is certainly mistaken, unless be lives in a part of the state I am totally unacquainted with. It is true that we must manage our grass lands differently from what is done in more northern climates; but it is also true that besides very valuable exotic grasses that may be cultivated with advantage, we have many native ones which can, with a little trouble, be made very profitable; and among these there are several kinds that in no degree yield to any of those cultivated at the north. I believe it is perfectly true that we can, in the southern states, obtain hay of a quality equal, and most probably superior, and at an expense less than can be done at the north. We must also admit that our agricultural habits have hitherto been opposed to our successes in this respect; or rather, that we never have considered the subject properly, or attended to it in a manner worthy of it. To prove this most satisfactorily, I shall state what Mr. R. a very respectable neighbour of mine, has been doing for several years, by noticing what he has particularly done this year.

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[*] See Note D.

There is no planter in this state, but what knows crab or crop grass, (*Digitaria sanguinalis*,) and also the crow-foot grass, (*Eleusine indica*,) and that both these make excellent hay, particularly the latter; and also that there is no need of sowing either of them, and that they will invariably grow more or less abundantly, according to the quality of the land, after a summer ploughing.

Mr. R. obtained last week from four acres of land, only of middling quality, *twenty thousand pounds* of crow-foot grass hay; and he has another lot of about the same size which will produce, probably, about the same quantity. There is no kind of doubt as to the quality of this hay. It is very fragrant and very nutritious, and both horses and cattle eat it most greedily.

I beg, sir, you will take notice that this great crop of hay is a *second crop this year off the same land*, from which was cut, last June, a great crop of oats. Now, to obtain such crops, Mr. R. manures his land pretty highly with stable manure; gets a first crop of Indian corn; this is followed by a crop of small grain; rye, wheat, barley, or oats; and after the latter is off the ground, which is about the end of June, he gives his land a good ploughing, and has it rolled with a heavy roller to smooth it; and he lets it stand till about this time, when he mows his grass and cures it. Where can such a crop of hay be procured at a cheaper rate? It is remarkable, that if the land is ploughed as early as the latter end of May, (which may be done if rye, barley or wheat is the first crop,) crab grass will chiefly come up; but if as late as the last of June or beginning of July, crow-foot grass will come up almost exclusively—and this is the better grass of the two.

The present crop of Mr. R. is the crow-foot, which was from two to two and a half feet high, (I measured it myself.) This grass is most undoubtedly excellent, and it contains so much saccharine matter, that I have no doubt sugar might be extracted from it. This grass will grow on all qualities of dry land, and more particularly on a light sandy soil. Every farmer has it, then, in his power to have such crops of it as Mr. R., by using the same means. This being the case, why should we envy our northern neighbours their permanent meadows, or their other cultivated grasses? But we have low grounds also well calculated for meadows, properly so called, and in these a great number of native grasses grow with the utmost luxuriance, and many of them make excellent fodder. I know but few of them by name; some of them, however, will be found among the Panicums, the Paspalums, (in dry and also in wet land,) the Agrattis, the Poas, &c.

This productiveness of our cultivated lands in crab and crow-foot grasses, without either being sown, is not however, a new discovery. It has been obtained, occasionally, and I believe every time it has been attempted. I have seen several papers at different times in the American Farmer, to which I beg leave to refer your readers. Some of them will be found in vol. 3, pages 212-224, in vol. 4, page 412, &c.

It is undoubtedly desirable that the agricultural societies in this state should direct some experiments on the culture of many of our native grasses; and I think it very probable that some of them would prove as valuable as the justly celebrated Guinea grass, or even in some respects more so, on account of their being suited to our soils and climate.

I am, very respectfully, dear sir,
Your obed't serv't,
N. HERBEMONT.

(From the Reporter.)

SHEEP.

Feeling a lively interest in the prosperity of the sheep business in this country, having a flock myself, I have thought proper to communicate the following facts and observations to the public, with a view to excite inquiry and elicit information in relation to that disease which has carried off so many of these useful animals during the present season.

Some time in February last. I looked at a flock of yearling lambs, (about 200 in number,) belonging to J. R. which I had seen late in the fall; at that time they were in a thriving condition. In February, when I examined them, several had died and the remainder were very poor, and a general cough prevailed among them, which increased with a shrill sound, a dull and heavy appearance, and extreme emaciation. Some time after, I dissected a sheep of this flock, which had fallen a victim to the disease. I commenced at the cardia, (pit of the stomach,) and cut obliquely backward, in the direction of the diaphragm on both sides, more than half way toward the spine or backbone; thence to the pelvis on both sides, so that I could have a complete view of the contents of the abdomen. I found no adipose matter. I continued my examination about the region of the colon; but found no inflammation, nor any other morbid appearance, until I came to the duodenum; it contained nothing but a little yellow, greenish slime, the duodenum somewhat inflamed, but the liver quite sound. I then passed the knife between the ribs and cartilages which connect the ribs with the sternum, which I removed. I dissected the pleura and exposed both lobes of the lungs. They were indurated and inflamed from the extremity, more than half way to the bifurcation of the trachea or windpipe. I opened the pericardium, but saw no morbid appearance. I then laid the lungs open, and in the cellular substance of the lungs and in the bronchial vessels there were a multitude of worms about as thick as a linen thread, and from one to six inches in length, exceedingly sharp pointed at one end, and that end of a chestnut brown colour, the rest of it of a pale white colour. In a day or two after, I dissected another sheep while it was yet warm, and found the appearance precisely the same, only that the worms were alive: in the other they were dead. I directed Scotch snuff to be given to the sheep which seemed to be diseased, on their food morning and evening, and tar and sulphur once a day. They appeared to improve in health immediately. The same application was used in a neighbouring flock, and apparently with good effect. Whether it is a remedy for the disease I will not undertake to decide, as but one or two experiments have been made; but it may be deserving a further trial.

Woul Grower.

Notes. *Diaphragm*—The muscles which separate the chest from the abdomen.

Adipose—Fatty matter.

Colon—One of the large intestines.

Duodenum—One of the small intestines.

Sternum—The breast bone.

Pleura—The lining membrane of the chest.

Bronchial vessels—Air vessels.

HORTICULTURE.

KITCHEN GARDEN FOR OCTOBER.

This is the last month for finishing all material sowing and planting before winter. A few articles only are to be sowed, but several planted and pricked, some for winter supply, and others to stand the winter for early and principal crops, next spring and summer. At this season, likewise, several present crops will require to have a thorough clearing from all autumnal weeds; others earthing up, and some a peculiar winter dressing.

Sowing is now required in only three articles for early production next spring and summer, viz: peas, lettuces, and radishes; and small salading for present supply.

Planting must now be completely finished in all or most of the following crops: celery, endive, cabbage-coleworts, cauliflowers, brocoli, borecole, garlic, shalots, rocembole, mint, balm, beans, &c., and several plants for seed, as cabbage, savoys, carrots, onions, parsnips, red beet, turnips, &c.

Aromatic plants, in beds and borders, should now have a thorough cleaning and dressing, if not done in the preceding month, cutting away all decayed stalks of the plants, hoeing off all weeds, digging between some that stand distant, others close growing, and spreading earth from the alleys over the surface of the plants.

Jerusalem artichokes may now be dug up for use, and towards the latter end of the month all may be taken up for keeping in sand the winter.

Cut down the stems of the asparagus in the beds of the last spring, hoe off the weeds, dig the alleys, and some of the earth over the beds.

Plant out, finally, some of the strongest cabbage plants, sowed in August, two or three feet distance, or some closer to cut young. Plant also for coleworts a foot distant for spring.

Your main spring sowed crops of carrots being now arrived at full growth, take them up towards the latter end of the month, for steeping in sand all winter. Cut the tops off close cleaned from the earth, and, when quite dry, let them be carried under cover, and placed in dry sand, or light dry earth; a layer of sand and carrots alternately.—Young carrots of the autumn sowing in July and August, clear from weeds, and thin where too close; the former sowings for present use, or young winter carrots, the latter for spring. Large carrots for seed, plant in rows two feet distance.

Manure your grounds, where it is required, with rotten dung of old hot beds, especially where the hand-glass crop of cauliflowers and early cabbages are intended. Dig ground for present planting with proper crops of the season, and also at opportunities, ridge vacant ground to lie fallow, and improve for future sowing and planting.

Continue to tie up full grown plants of endive in dry weather, every week to blanch. Plant endive for the last late crop, in a warm border, to stand till spring.

Hoe cabbages, coleworts, brocoli, savoys, and turnip-cabbage, cutting up clean all the weeds, and drawing earth to the stems of the young plants.—Likewise hoe winter spinach, thin the plants, and destroy all the weeds.

Horse-radish is now at full growth to be dug up for use as wanted, by trenching along each row to the bottom of the upright roots, cutting them off close to the bottom, leaving the old stools for future production.

Lettuces of the two last months sowing must now be planted in warm south borders, or in some dry corner sheltered from the easterly winds, five or six inches distance, to stand for next spring, and an early summer crop.

Parsnips being now at their full growth, dig up a quantity, and lay them in the sand, in the same manner as directed for carrots.

Potatoes, which have now arrived at their full growth, may be all dug up, and housed in some dry close place, thickly covered with straw, from the air and moisture, to keep all winter, till spring or summer.

The winter crop of spinach should now be well cleared from weeds, by hoeing or hand-weeding, and the plants thinned, where too thick, to four inches distance, or left close, and thinned out as wanted for use, now and in winter, &c.

Seed plants of several sorts should now be planted, as cabbage, savoys, of the full cabbage divested of the large leaves, and put in by trenching them down to their heads, two feet distance; as also carrots, parsnips, turnips, and red beet, all of full growth; cutting the tops off near the crown, and planting them two feet distance, with the heads one or two inches under the surface of the earth. Also the largest dried onions planted in rows the same distance by a foot in the row, and three or four inches deep over the crowns.

PLUMS.

The Preparation of Prunes.

Mr. Editor:

As some of your readers are anxious, I know, to learn the process of making prunes, I send you the following description of it, extracted from the French books.* It is, you will perceive, exceedingly simple, and may be practised to any extent in this country. Skill and industry might, doubtless, make it as profitable a business here as in Europe.

"The plums must be gathered with the hand, when perfectly ripe. They cannot be too sound; and such as fall or are punctured by insects should be rejected. Arrange them on plates or sheets of iron so as not to touch one another, and put them in an oven after the bread has been taken out. While there turn and move them occasionally. When become cool, pack them compactly in boxes and secure them from moisture. If they are not dry enough when withdrawn from the oven, place them in the sun; for it would render them too dry and hard, to subject them to the heat of an oven a second time. In choosing prunes, prefer those that are new, soft and fleshy. They will keep upwards of two years."

"Prunes may be made of almost every sort of plum that is eaten. But those that are considered the best for the purpose, are the *gros damas de Tours*,† the *impériale violette*,‡ and the *impératrice violette*.‡"

There is another preparation of plums, in which they are called *brignoles*. "For them are used chiefly, and almost exclusively, the *white perdrigon*, (see Prince's Catalogue, plums, No. 103,) which is a very fine sweet fruit. At the village of Brignoles, in Provence, in France, where this preparation was first made, the *perdrigon* plum is steeped in hot water to loosen the skin, then peeled, and then split open to remove the stone." The rest of the process is the same as in the preparation of ordinary prunes; that is, the drying in an oven and in the sun, and the packing away in tight boxes. The only difference is, I should suppose, that less heat must be applied to the *brignoles* than to *prunes*.

Besides the various preserves and sweatmeats that are composed of plums, the French peasantry make a liquor of the wild plum, by crushing it in water and letting it ferment. Amateur.

WINE AND SILK.

There is, perhaps, no country in the world where the vine grows more luxuriantly and abundantly than in North Carolina—and mulberry trees of the largest and finest growth are to be found every where in our state. It is a matter of astonishment that *all our farmers* do not make wine, *at least*, if not silk. A farmer in South Carolina, last year, from four acres of land, sold wine to the amount of $2,400. A *few* of our farmers have small vineyards, but we would like to see it become *general*—for if cheap wine could be substituted for the miserable whiskey that is now doing so much injury in our country, it would have a most happy effect. Not only would its extensive culture give a greater scope to agricultural industry, but it would yield a greater revenue to planters, *by far*, than our present crops. One of our most respectable farmers in the vicinity of Newbern, last year, succeeded perfectly well in raising silk worms, and has on his estate a grove of 300 mulberry trees. [*Newbern Sentinel.*

AMERICAN GRAPES.

J. S. Skinner, Esq. *Halifax, N. C., Sept.* 10, 1828.

Sir,—I send you enclosed some grape seed; the vine grows in a small island of Roanoke, a few miles above the Great falls. It is surely the only vine of the kind in the state, perhaps in the world. I have had all the islands carefully examined, and another cannot be found. Its colour is purple, about one-third larger than the common grape of the wood, slightly elongated, a difference in shape that distinguishes it from all others; in its flavour it is unrivalled, and when eaten diffuses a most grateful perfume. I prefer it to the Scuppernong. How it may succeed as a wine grape, no one can say; but for the table it equals the best French grapes.

The late Gen. Allen Jones found a vine of the same kind in an adjacent island, about thirty years since, which he removed to his garden, where it throve well and bore luxuriantly, but at his death, which happened a few years after, it was lost. That from which I send you the seed has been known for some years to the Trappers on the river; who described it to me as being of the same kind with the one found by Gen. Jones. For three years I failed to get some of the fruit; this season I got a few bunches, when its fine flavour and rarity determined me to propagate it both by seed and cuttings, and through you to offer them to those who wish to cultivate the finest vine of this, and I believe of any country.

Yours, respectfully,

A. J. DAVIE.

P. S. General Jones called it the Perfume Grape.

At the proper season I will send you cuttings; it is but a single small vine. These seed* should be directly placed in rich alluvial soil—they will come up next spring. I should be glad to have some directions how to put up the cuttings, and how to direct them.

My grandfather, the late Gen. Jones, who was the first botanist of the southern states, and curious both in shrubs and vines, considered this as the finest grape in his collection, and he had a great variety. D.

Philadelphia, 9th mo., 12th, 1828.

Friend J. S. Skinner,

Enclosed are a few seed of a large native grape. The berries are about three inches in circumference; their colour, when fully ripe, (which is now the case,) is black. They grow about ten miles south of Philadelphia, near the town of Woodbury I have sent some seed into the state of New York, about 1° 45 north of Philadelphia, and wish some to be planted at a similar distance to the south.—Please to have some of them planted near Baltimore, and the balance planted about 1° 45 south of Philadelphia; with a request that if they should succeed, a description of the fruit may be forwarded to us.

Respectfully, thine, &c.

SAMUEL WEBB.

LADIES' DEPARTMENT.

LARD LAMPS.

Mr. Skinner, *Elkton, Sept.* 22, 1828.

Impressed, as I am, that but a very small portion of the inhabitants of our country are acquainted with the great convenience and economy of Lard Lamps, and conceiving that a word or two on that subject may subserve the interests of all classes of society, I cannot refrain from requesting a brief place in your useful journal, as the most proper organ of communication on subjects touching our common concerns.

It appears to me perfectly demonstrable, that a saving of five hundred per cent. may be effected by the use of such a lamp as I shall now describe, in the place of candle light on some occasions. Take a common sized tea-cup, or any similar vessel, and fill it with lard; then take a scrap of paper and twist it tightly in the middle, so as to make a small point project up about three quarters of an inch for a wick; then cut the paper round, so as to lie in the cup, covered about a quarter or half inch deep with the lard, leaving a slight projection of the little wick from the centre. Thus you have a lamp that will last three whole nights in succession. It is simple, is within the power of any family to obtain, and for burning all night in the chimney of a sick room, is infinitely to be preferred to candle light, as it is so much cheaper. Now to the proof. The cup thus filled, will contain less than ¼ lb. of hog's lard at 10 cents per pound—say for three nights,

	cts
hog's lard at 10 cents per pound—say for three nights, ...	.02
To come at the cost of one night, deduct that of two nights, ...	.01 1-3
	.0 2 3

Which shows the cost of light for a whole night, say nine hours, to be only two-thirds of a cent—at which rate such a light, burning all night every night, would only cost, for a whole year, $2 43⅓ cents. Now to show the difference between that and candle light, in point of cost, it is only necessary to proceed as follows, viz: it requires three

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* *L'école du Jardin Fruitier, par M. De La Bretonnerie*, revised and augmented by the author of the *Bon Jardinier*.—Paris, 1808, two volumes.

Cours complet au Dictionnaire Universel d'Agriculture Pratique, &c., by the *Abbé Rozier;* revised, corrected and augmented by eighteen persons, in 7 vols.—Paris, 1815.

† The *gros damas de Tours* (large damask of Tours,) is not mentioned, at least under its French name, in Mr. Prince's catalogue. What its English name is, therefore, I do not know. It is thus described in the books already referred to: the tree grows to a large size, and is apt, when a standard, to drop its flowers; the fruit is rather long, of a moderate size; has a deep violet skin, floured, sour, and adhering to the flesh; the flesh is yellowish, almost white, fine grain and firm; the juice is sugary, and has the peculiar flavour of the damask plums. It is added, that if the skin, which will not separate from the flesh, did not communicate to it a disagreeable smell, this plum would be excellent.

‡ In the books referred to, *impériale violette*, and the *impératrice violette* are described as separate plums; but in Prince's catalogue (No. 48, plums,) they are both included in one. Perhaps the *impériale violette* may be what he calls (No. 19,) the *purple egg or red imperial.*

[* They have been handed over to Doctor Monkur, Corresponding Secretary of the Maryland Society for promoting the Culture of the Vine.—Ed. Am. Far.]

candles of nines to the pound to burn one night, (say nine hours,) which, at 12 cents per pound, is	$ .04
At which rate, the use of that much candle light per night for a whole year, amounts to	14.60
In order to ascertain the difference, deduct cost of lard light, . .	2.43 1-3
	$12.16 2-3

Which shows a difference of just five hundred per cent.

Now, admitting that there are six hundred families in this county, which I believe is quite within the actual number, and supposing each family to use that quantity of light per night, it amounts in the use of candle light to	$8760 00
But in that of the lard light, to only	1460.00
Shewing the enormous waste of	$7300.00

So that as small sands form the mountain, and economy is said to be wealth, perhaps it would be as well to keep our top-eye open a little sharper toward those smaller items of family expenses.

Franklin.

N. B. It appears to me that the above light may be adapted to many purposes; such as coarse sewing, carpentering, shoe-making, &c.

THE PLACE OF REST.

I am weary of life, I am tired of the earth,
Of its dark sorrows and boisterous mirth,
Of its changeful scenes, its uncertain joys,
Its wo that frowns, and its pleasure that cloys,
Of its dreams that delude the youthful breast:—
—Would that I could find me a place of rest!

I sought in a land far beyond the sea,
Where the flowers came forth in radiancy,
Where shone the clearest and sunniest sky;
But, alas! I found that the flowers would die,
That clouds would o'ershadow the heaven's blue breast;
And I left it,—for me 'twas no place of rest!

I returned again to the spot of my birth;
But change had come on its cheerful hearth;
Some were now wanderers o'er the far wave,
Some were at peace in the lonely grave:
There were still some hearts that were not estranged;
But, except their affections, all things were changed!

There were voices beloved, but the tremulous tone
Told of the years that had over them gone;
There were brows that, scarce touched by time's darkening wing,
Looked like the lingering flowers of spring;
There were smiles—but they only shone on decay,
Like the fading light on the dying day.

There were heads with whose sunny clustering hair
Was mingled the early snow of care;
There were eyes,—but where was their once bright hue?
A mist of tears had come over their blue;
Oh! I brook'd not to look on such altered things,
And I stayed not there my wanderings.

I went to fair cities, and in the crowd
I mingled awhile with the gay and the proud;
I strove to be happy, I strove to smile,
But the days pass'd heavily on the while;
And though every hour with mirth was fraught,
It bore not within it the peace I sought.

I fled away into solitude,
I hoped to find quiet by mountain and wood;
But, alas! when the spirit would use its wings,
And mingle with grand and glorious things,
'Tis fetter'd by clay to its mortal sphere:
—Rest there was none for my bosom here.

I sat me down 'neath the midnight sky,
The bright stars sparkled like gems on high;
Before me lay the mighty deep;
Still murmuring on in its peaceless sleep—
And I thought, as I looked on its heaving breast,
"There is, indeed no place of rest!"

But there came a still small voice through the gloom,
"Thing of the dust! return thee home;
Is it thine to repine at the will of Him
Before whom yon glorious stars are dim?
Pray that sins may be forgiven;
Hope for a resting-place in heaven."

Mary Anne Browne.

Why are the ladies like stage-drivers?—Because they generally secure the *mails*.

When is a door not a door?—When it is *a-jar*.

SPORTING OLIO.

HUNTING.

The season is at hand, when

"At the sound of the born
We rise in the morn,
And waken the woods as we thunder along,
Yoix, yoix, tally ho!
After Reynard we go,
While echo on echo redoubles the song;
We waken the woods as we thunder along,
Tally ho, tally ho,
After Reynard we go,
While echo on echo redoubles the song."

At Washington the campaign has opened with good sport on the *gray* ground. Their pack is young but of the best blood, being chiefly from Terret's old Ruler and broken-leg Ratler, (alias Old Industry,) and from Spring, from the Eastern Shore of Maryland, and the late celebrated Juno. The young dogs have been entered with the advantage of an early taste of blood, always to be had where gray foxes abound.

According to recollection of the old pack, says an honorary member, and the young dogs to be entered this season, the District Club Pack, counts thus:

Hickory—out of Spring by Ratler.
Leader—Juno by Ruler.
Maria—Ditto by Ditto.
Morgan—Spring by Ratler.
Rat—Ditto by Ditto.
Blue-cap—Juno by Ruler.
Nettle—Ditto by Ditto.
Juno—Ditto by Ditto.
Sting—Ditto by Ditto.
—— a white dog from Fort Washington.
Slim,
Sportsman,
Cæsar,
Tyro,
Ranger,
And, though last not least, old True Penny, alias Industry, alias Old broken-leg Ratler.

Mr. Skinner, *Warrenton, Sept. 23, 1828.*

Sir: The liberal spirit evinced by your association for the improvement of the breed of blooded horses induces me to forward you, for publication in "*The Farmer*," a correct account of the

WARRENTON, N. C. RACES.

Last year of the Subscription, Fall Meeting, September, 1828.

Tuesday, 16th.—Jockey Club Subscription, first choice of tickets $10 each, to the amount of $200—2 mile heats, course 7 yards over a mile, and very heavy.

J. M. West's s. g. Pawnee, by Shawnee, 4 ys. old—83 lb.	1	1
J. J. Harrison's gr. h. Geo. M'Duffie,	2	2

Time—1st h. 4 m. 2 sec. 2d h. 4 m. 3½.

1st mile in 2d heat, 1 m. 57 sec. won easily.

Wednesday, 17th.—A purse of $100 in money, given by the proprietor, and the balance of the subscription, $260, in doubtful tickets to close the subscription. Mile heats, best three in five, distance 90 yards.

J. J. Harrison's b. m. Susan Robinson, by Sir Hal, 5 ys. old, 107 lb.	1	2	1	1
Jos. K. Bullock's gr. f. by Sir Archie, 3 ys. old, 83 lb.	2	1	2	2

Wm. M. West's b. c. by Sir Archie, distanced.

The winner ran two miles with her rider for the first heat. The 2d heat was won by about the hips. The 3d to the point of the shoulders. The 4th easily.

Time—1st h. 1. 57. 2d h. 1. 58. 3d h. 1. 59. 4th h. 2 m. 1 sec. The gray filley is considered a very promising 3 ys. old, being large and evincing both great speed and capital bottom. She was evidently in bad order and badly rode.

The first day was memorable for a melancholy accident happening to Mr. James Boyd, a promising and wealthy young gentleman, who was thrown from his horse and killed as he was returning from the race course to the village.

Respectfully yours,
JAMES SOMERVELL,
One of the Stewards.

(Items from late English papers.)

The Oaks.—It is considered a curious coincidence, that the winner of the Oaks was ridden by J. Day, the second horse by W. Day, and the third by S. Day. A wag remarked that, although the race only occupied two minutes and forty seconds, in the winning, it was a work of three *Days!*

Foot Race on the Roodee at Chester.—*Cheshire against Flintshire.*—A match for l10 a-side, distance 160 yards, came off on the race course at Chester on Monday afternoon, between Samuel, eldest son of Mr. Joseph Lewis, who keeps the Inn at Coatbrook, near Tarporley, and Edward Davies of Hope, in the county of Flint. Both the men (neither of whom had ever been beaten) had already obtained some local celebrity; Davies having beat the Holt and Wrexham runners, and Lewis being well known among his neighbours, Delamere Foresters, as nothing but a good one, and having among other feats let Admiral Tollemache into a secret, by beating an Epsom runner whom the gallant Admiral brought down to compete with this young Forester. The friends of both parties were each very confident of success; and the Welshmen were backing their countryman freely at 4 to 3, and 6 to 4, with plenty of takers. The men made an excellent start, by signal, each setting off at the top of his speed. After the first fifteen yards there was not a shadow of a chance; it was all Lombard street to Rag Fair on Lewis. He darted a head about four or five yards and maintained that superiority, occasionally turning round upon his opponent and urging him to mend his pace! He ran the distance in

15 seconds; and if the ground had not been so heavy, or if he had wished to make greater exertion, he could have done it in less time. The Welshman looked exceedingly blue at the defeat the Principality sustained, and the young Cheshire hero was borne off the field in triumph amidst loud shouts of *Cheshire for ever.* We understand that Lewis's father, who is an extensive farmer, and is himself no mean proficient in athletic sports, as those can tell who have felt the weight of his "bunch of fives," will back him for *l*50 a-side against any man in England for 160 yards.

Pedestrian Feat.—Cootes, the pedestrian, at 9 o'clock on Thursday evening, accomplished his arduous task of walking 1250 miles in 1000 successive hours. Cootes did his last mile and a quarter with amazing speed. This match throws that formerly accomplished by the celebrated Captain Barclay completely in the back ground. Cootes has fallen away two stone since the commencement of the match.

MISCELLANEOUS.

Stevens' Steam Paddles.

This invention is a method of propelling vessels by the agency of a series of paddles attached to a three-throw crank, with the aid of steam or other power; and which may be used as a substitute for undershot water wheels, &c. The chief advantages obtained by this method over the common wheel are—1st. As the inventor's paddles work in a vertical position (with sufficient allowance for the impetus of the vessel,) they cause a saving of the power now consumed by the descending and ascending paddles, and produce an increased application of power, as illustrated by an accompanying comparative statement. 2d. The avoidance of unpleasant vibration and consequent wear and tear in the vessel and engines; and also of the run of backwater, which is so very dangerous to wherries, &c.; and has hitherto been the means of preventing the introduction of steamers upon canals. 3d. The capability of increased velocity, commensurate with the power applied, not being governed with the maximum of motion that limits the revolutions of the common wheel. The following is a comparative statement of the application of power between a common wheel, whose paddles are 7½ feet long and 1½ feet deep, and the inventor's paddles, fitted in the same space from the vessel's side: Common wheel, a paddle 7 feet 6 in. long, and 1 ft. 6 in. deep, gives a square surface of 11 ft. 3 in.; say there are always two immersed, which gives 22 ft. 6 in.; deduct one-third, the quoted allowance for the loss of power on the descending and ascending paddles, 7 ft. 6 in., leaving 15 feet. The inventor's method: Taking his paddles at 2 feet wide and 2½ ft. deep, each present a surface of 5 ft.; he has always four paddles immersed, which makes 20 ft.; and as each set, of four paddles, describes the segment of an elipse in the water, instead of that of a circle, he is surely within bounds to take one-fifth part, 4 feet; giving in all 24 feet. showing a very considerable advantage in favour of the invention, besides the capability of increased velocity. It is presumed that, in many instances, the application of this invention to vessels already fitted with steam engines, will increase their velocity more than one-third; while for new vessels, engines of about forty horse power will be equal to the work now performed by those of sixty, thereby causing less draft of water, greater despatch, affording more stowage for goods, and better accommodation for passengers. Compared with the various improvements on the paddle wheel, already published, specified, or exhibited, this invention has in all instances some, and in some instances all, of the following advantages:—1st. Great reduction of friction, and consequent durability and comparative cheapness. 2d. Simplicity of construction—admitting of repair, unshipping, or replacing, even at sea. 3d. Equal applicability in propelling vessels a-head or astern. 4th. The machinery being easily taken to pieces, and packed in a much less space than would be required for a wheel, additional sets may be conveniently taken on long voyages. 5th. An accident occurring to one set, (or even two out of three on either side,) would not prevent the working of the remainder.

(From the New England Farmer.)

Employment of Time.

Mr. Fessenden,—Your repeated favours induce repeated demands upon your goodness. I should like to add to your hints, inserted in your last upon the improvement of the winter evenings of farmers. If farmers benefit themselves by weekly social meetings, they may confer a still greater benefit upon their sons and their daughters. If a subject upon agriculture or domestic economy, say the raising, use, and preservation of fruit—the management of a garden, or some particular vegetable, of a dairy, of poultry, or of fuel, should be prepared at one meeting for consideration at the next, it would naturally, and almost necessarily, become the topic of conversation at the table and fireside, both before and after the regular discussion. Conversation upon a particular and important subject would create a desire for reading, and this desire would lead to the possession of books, and periodical and weekly journals which treated upon it. The natural consequence would be, that conversation and social intercourse, the channels of almost all the information and habits, both good and bad, which exist in the world, would be purified and elevated. Topics of conversation would be immediately changed. Substantial improvements upon farms, domestic economy and convenience, the principles of science which ought to direct, in the construction and uses of farming utensils, the laws of heat, upon which the economy and success of the management of fuel depend; and consequently natural philosophy, chemistry, general science upon matter, intellects and morals, would, in conversation, take the place of a fashionable dress, or novels, the shape of a leghorn, the colour, form or position of a bow most fashionable upon head dresses, and what is still lower, of petty scandal. And consequently good would be done and evil prevented.

Franklin.

Soundness of the Lungs.

Dr. Lyons, of Edinburgh, proposes an ingenious and practical test for trying the soundness of the lungs. The patient is directed to draw in a full breath, and then begin to count as far as he can, slowly and audibly, without again drawing in his breath. The number of seconds he can continue counting is then to be carefully noted. In confirmed consumption, the time does not exceed eight, and is often less than six seconds. In pleurisy and pneumonia, it ranges from nine to four seconds. But when the lungs are sound, the time will range as high as from twenty to thirty-five seconds.

Muscular Power.

A Turkish porter will run along carrying a weight of 600 pounds; and Milo, of Crotona, is said to have lifted an ox, weighing upwards of 1,000 pounds. Haller mentions that he saw an instance of a man, whose finger being caught in a chain at the bottom of a mine, by keeping it forcibly bent, supported by that means the weight of his whole body, 150 pounds, till he was drawn up to the surface, a height of 600 feet. Augustus II, King of Poland, could with his fingers, roll up a silver dish like a sheet of paper, and twist the strongest horse shoe asunder; and a lion is said (Phil. Trans. No. 310) to have left the impression of his teeth upon a piece of solid iron.

Temperature of the Earth.

M. L. Cordier, in his essay read to the French Academy of Sciences, deduces from his own observation and those of others, that the heat increases as we penetrate from the surface towards the centre of the earth, at the rate of about one degree Farenheit in 45 feet; that the heat of boiling water is found in our latitudes about a mile and a half below the surface; that at the depth of 60 miles, the heat must be so intense as to keep such rocks as we see at the surface in a state of fusion; that the interior of the globe, in short, consists of a molten mass, encompassed by a solid crust or shell, about 60 miles in thickness.

The manufacture of steel has been commenced, with great success in Pittsburg. Specimens have been produced said to be equal to the best "*Crowley*" steel.

THE FARMER.

Baltimore, Friday, October 3, 1828.

☞ The article on the Rideau Canal, promised in a previous number, has been unavoidably postponed; we hope to find room for it in our next.

☞ Sheep Wanted.

"The Editor of the American Farmer will much oblige some of his lower county subscribers if he will inquire through the medium of his useful paper, where they can procure a few Bakewell sheep of the best blood, particularly bucks, not less than one or more than three years old, and what will be the probable price, and whether they could be delivered at Baltimore or any part of the western shore. *A Subscriber of Anne Arundel Co.*"

[The Editor takes this opportunity to say that frequent inquiries for the same race of sheep have been made, but he has not been able to give a satisfactory answer. The fact is, that Maryland farmers either believe it will not pay them for the trouble, or they will not take the pains to keep up any distinct race of animals. They get the full blood this year, and before their qualities can be made known and the animals come into demand, they let their blood get mixed indiscriminately with others of the same species, and the degrees of different blood can no longer be precisely known.]

☞ We take occasion to recommend gentlemen who have animals of more than ordinary value for sale, to bring them to the cattle show for sale on the 16th day of this month.

Whether they be horses—mares—improved cattle—Bakewell sheep or Southdown sheep, or mixed blood of these two; and it will be much better if they will advertise in this paper what they mean to bring, we will insert gratuitously any thing to be sold at the cattle show. Though in many cases public sales on satisfactory terms may not be effected, yet it will always happen that private sales or exchanges may be effected highly satisfactory and advantageous to all parties. By being previously advertised, people will come on purpose to purchase.

New Wheat—Garden Seed, &c. from the Mediterranean.

"Dear Sir, *Baltimore, 19th Sept. 1828.*

"I take the liberty of presenting you, with a small sample of wheat, a little cabbage, lettuce, turnip, and onion seed, which I obtained on the coast of the Mediterranean. The grain of the wheat, you will perceive, is large, full and flinty; and it is said, resists the action of the fly. The garden seed, are offsprings, each of their kind, of very superior vegetables; and if they should not deteriorate by a cis-atlantic transplantation, I have no doubt, will prove useful, as well as healthful auxiliaries to the other dishes of the table. I beg, that you will accept of those little fruits of my late voyage, as a slight token of gratitude, for the many favours that I have received at your hands; and as an evidence of my opinion of your superior skill, in disposing to proper use, such articles of foreign growth, as are, or may be likely to benefit our highly favoured country.

Permit me to subscribe myself with very sincere respect,

Your friend and most obedient servant,

J. S. Skinner, Esq. JAMES PAGE.

☞Plaster of Paris.—A very enlightened and scientific correspondent has received a letter from a friend in France, making inquiries relative to the experience of American agriculturists in regard to Plaster of Paris, The substance of his inquiries is embodied below, and are published for the sake of obtaining early information from those who are conversant with the subject.

"Mr. Skinner would greatly oblige Dr. Chatard by giving him his opinion on the following questions concerning the Plaster of Paris; viz:

1st. Is that substance used now, as much as formerly?

2d. In what quantity is it used?

3d. Is it a real manure?

4th. How does it act?

5th. What sort of lands does it suit?

6th. Is it true that after one or two crops, the land on which it has been thrown, is much impoverished? If so, why and how?"

Ratoon Cotton.

Wilkinson County, Miss. Sept. 1, 1828.

Mr. Skinner:

I send you a sample of the seed of *Ratoon Cotton* from the old stalk. The staple is much superior to that which comes from the seed of this year; it ripens much earlier, and it has a greater number of boles. Besides I can discover no rot. I have a great quantity of the ratoon cotton growing in my corn field, without any culture whatever. The corn or weeds do not seem to injure it. In this county, if we had made the discovery, a great saving of labour might have been produced, by not ploughing up the old root. I have planted corn between the *rows* of the old stalk, and have cut the stalk about two inches above ground. I have seven acres of the ratoon cotton, standing almost entire; it was not *hoed* until *July*, and it is now as high as any other cotton, and equally well boled. I have growing in the same field with the cotton, Indian and Guinea corn, which was not planted till July, and it is now in roasting ear, and part of the Guinea corn bearing. With respect, your ob't.

WM. HAILE.

The following article from the Alexandria Gazette, on a subject now occupying much attention, as there is a prospect of rise in the value of wheat and flour in Europe, gives information material to an accurate calculation.

The English quarter of wheat weighs 560 pounds, being a quarter of a ton—this is equal to eight English bushels of 70 pounds each, or 9⅓ American bushels of 60 pounds each. This computation should always be attended to in bringing the English quarter of wheat into American bushels.

The English sack of flour weighs 280 pounds—7 sacks equal to 10 American barrels, 1960 pounds.

GENERAL LAND AND INTELLIGENCE OFFICE,

Fayette-st., basement of City Hotel, Baltimore.

For the sale of cultivated and uncultivated Lands, Farms, Building Lots, Houses, &c. in all parts of the union, and adjoining territories, where owners and others concerned in lands, &c. can send a description of their property, prices and terms of payment, to be recorded in books kept for that purpose, and thereby enable purchasers to ascertain information respecting real estate, &c. To procure money on bond and mortgage; to attend to all the agencies connected with the different state offices; to make inquiry respecting lands that have been sold by the comptroller for taxes that remain unpaid, let the owners know the result, if required, and the sum necessary to redeem the same.

Also to act, as agent to purchase merchandize, household furniture, country produce—the stock and fixtures belonging to persons declining any kind of business, &c.

In soliciting subscribers to domestic and foreign publications, &c. Likewise attend to supply Merchants, Canal and Rail-road contractors, proprietors of manufactories, and others, with clerks, foremen, all necessary help, &c. also with partners, who can advance small or large capitals.

N. B. Young or middle aged men can always, by complying with the terms of this office, secure mercantile, or any other respectable employment in the city, union, or any otherpart of the globe.

My terms are as follows:—Lands, Houses, Lots, Merchandize, &c. registered for sale, $2 in advance—postage on all letters paid; for searching state offices, $2 in advance, postage paid; for procuring situations, &c. from 3 to 5 dollars, postage paid on all letters, or else business and letters will not be attended to.

☞ This rule will be strictly enforced in all cases.—Postmasters will please to frank their letters. It will be necessary to have correct maps and descriptions, &c. of lands, &c. left in the office for sale. And when sales are effected, or employment, &c. procured by me, a moderate and reasonable commission will be exacted.

There is, without exception, in this city, no office of the kind conducted upon the same principle and system as mine—and the extensive domestic and foreign acquaintance and correspondence attached to this office render it a general benefit to all, far or near.

It is the general opinion of its patrons and others, that it will be a great accommodation, not only to proprietors, but also to different local land agents in various sections of the state, union and the adjoining territories, as well as others who may have business here. The local situation of this city, as being a very enterprising and a great seaport town, and where, at all seasons of the year, there is a great resort of persons, not only from all parts of the United States, but from all parts of the globe—being a great thoroughfare from east to west and from north to south, seems to demand an establishment of the kind.—With a sincere hope that it will meet public approbation and support, I subscribe myself GEO. W. EVERITT, *Proprietor.*

N. B. Having an interest in an office in New York, and agents in other cities will enable me to execute business there as well as here, to satisfaction. G. W. E.

WANTED,

A person who understands the business of a *Vine Dresser*—one who is well acquainted, not only with the cultivation of the vine, but with the most approved process of making wine would be preferred. The advertiser proposes to furnish him with a house to live in, and to allow him a portion of the profits of the vineyard for a certain number of years. The applicant will be expected to produce satisfactory evidence of his sobriety, industry, and fitness for the situation.—Inquire at the office of the American Farmer.

Oct. 3, 1828.

FOR SALE,

The undermentioned thorough bred Mares and Colts.

No. 1. A sorrel, mare 8 years old, by Oscar, in foal by Rattler, with a colt by her side, got by Marylander, which was got by Rattler.

No. 2. A very handsome colt, two years old, out of No. 1, by Rob Roy.

No. 3. A sorrel mare, 5 years old, by Rattler, in foal by Rob Roy.

Pedigrees at large in possession of Mr. Skinner.

TO FARMERS.

The subscriber has finished on hand, Wheat Fans, on the Scotch principle improved, and warranted equal to any that can be procured in the city; Patent Cylindrical, and Common Straw Cutters; a full assortment of Gideon Davis' Improved Ploughs, and Improved Barshare Ploughs; Patent Corn Shellers; Harrows; various Cultivators for Corn, Tobacco, &c.; Brown's Patent Vertical Wool Spinners; Shovel and Substratum Ploughs, and Swingle Trees; Cast steel Axes, Mattocks, Picks and Grubbing Hoes; superior Oil Stones, &c.; Cast-iron Plough Points and Heel Pieces, for Davis' ploughs, always on hand to supply those that may want. JONATHAN S. EASTMAN,

No. 36 Pratt-st., Baltimore.

☞Blacksmith and other repairs done in the best manner, and at the usual prices. Also, Turnip Seed and a few boxes of Shakers' Garden Seeds, for sale.—Orders received for Fruit Trees.

FOR SALE,

A young Jack, 4 years old, well formed, good size, very promising and vigorous. He will be sold at a moderate price, or given in exchange for a pair of young, well broken coach horses.—Address, (post paid) to J. G. C., Port Tobacco, Charles county, Md.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer, by Edward J. Willson, Commission Merchant and Planters' Agent,

No. 4, Bowly's wharf.

Tobacco.—Scrubs, $3.00 *a* 6.00—ordinary, 2.50 *a* 3.50—red, 3.50 *a* 4.50—fine red, 6.00 *a* 7.00—wrapping, 4.00 *a* 8.00—Ohio ordinary, 3.00 *a* 4.00—good red spangled, 6.00 *a* 8.00—yellow, 6.00 *a* 9.00—fine yellow, 10.00 *a* 20.00—Virginia, 2.50 *a* 8.00—Rapahannock 2.75 *a* 3.50 Kentucky, 3.00 *a* 5.00. The Inspections for the week was 319 hhds. Maryland, 23 hhd. Ohio, 4 hhds. Virginia.

Flour—white wheat family, $7.00 *a* 7.75—superfine Howard-st. 6.00 *a* 6.25; city mills, 5.75 *a* 6.00; Susquehanna, 5.50 *a* 5.75—Corn Meal, bbl. 2.50—Grain, best red wheat, 1.10 *a* 1.15—best white wheat, 1.20 *a* 1.30—ord'y to good, 1.00 *a* 1.10—Corn .38 *a* .40—Rye .40 *a* .43—Oats, bush. .20 *a* .22—Beans, 1.00—Peas, .50 *a* .60—Clover seed, 4.50 *a* 5.00—Timothy, 1.75 *a* 2.25—Orchard Grass 1.75 *a* 2.25—Herd's 1 00 *a* 1.50—Lucerne 37½ *a* .50 lb.—Barley, .60 *a* 62—Flaxseed, .75 *a* .80—Cotton, Va. .9 *a* .11—Lou. .13 *a* .14—Alabama, .10 *a* .11—Mississippi .11 *a* .13—North Carolina, .10 *a* .11—Georgia, .9 *a* .10½—Whiskey, hhds. 1st proof, 22½ *a* .23—bbls. .25—Wool, common, unwashed, lb., .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* 212; Country, dew-rotted, 136 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.75; do. trimmed, 6.50—North Carolina, No. 1, 6.25 *a* 6.50—Herrings, No. 1, bbl. 2.87½ *a* 3.00; No. 2, 2.25 *a* 2.50—Mackerel, No. 1, 5.50; No. 2, 5.12½ No. 3, 4.00—Bacon, hams, Baltimore cured, .10 *a* 11; do. E. Shore, .12½—hog round, cured, .8 *a* .9—Feathers, .26 *a* .28—Plaster Paris, cargo price per ton, $3.37½ *a* 3.50—ground, 1.25 bbl.

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AGRICULTURE.

COMPLETE TREATISE ON HORSES.

Teaching how to judge them; to rear and manage them; how to improve their breed; to prevent or to cure the maladies and accidents to which they are liable; and to derive from them the most value under all circumstances. Useful to Breeders and Farmers, engaged in the rearing of these interesting animals; to Sportsmen, or Veterinary Surgeons; to stage Proprietors, Farriers, Horse Jockeys, &c. &c.

By an Old Officer of the French Cavalry.

(*Translated from the French for the American Farmer.*)

(Continued from p. 219.)

CHAPTER XVIII.

Different Ages of the Horse.

We will treat in this chapter of the different ages of the horse and the phenomena which are developed with them. By age is understood a certain space of time bestowed upon organized beings, and which presents sensible changes from their birth to their death. This space is more or less limited according to the different species. The passage from one age to another operates almost always among beings by sensible revolutions. That of the human species, from infancy to puberty, offers characters so striking that it cannot escape the slightest observer.

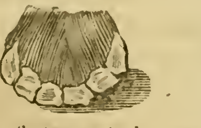
We distinguish in horses three distinct ages. The first that of the colt; the second that of the grown horse; the third that of the old horse. We call a colt, a young horse that has not attained four years; arrived at that age we consider him grown. All his powers are developed, and he can reproduce his species—he has not only received all his powers, but he has all the means of forming a being like himself. Among these animals there are, however, exceptions to be made. Regard must be had to the warmth of the climate, and other circumstances, which modify and change animals. The quality of the race contributes much to it. In general the common horse attains his growth sooner than one of fine blood; and in warm countries nature is universally more forward.

If after some time our best races have degenerated, it must not be dissembled that we have almost entirely lost them from want of necessary care and precaution. It is to culpable negligence that we must impute the debasement of the Norman and Limousin races.

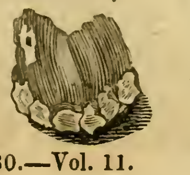
But from the wise measures now taken by the government in this particular, the most happy results may be expected.

To know the Age of a Horse.

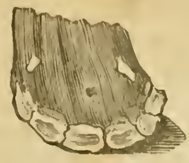
The horse has six teeth on each jaw. They are close together and perfectly uniform in their surface. At two and a half years of age he sheds the two middle teeth, which are expelled by others which he has at three years of age.



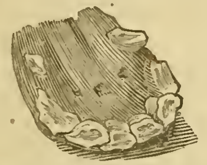
At three years, the two new teeth appear in place of the old ones. These two new teeth are distinguished by a remarkable cavity.



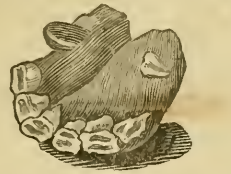
At three and a half years he sheds two others, to wit: one on each side of those shed at three years; and at four this loss is repaired by two others, having the same cavity before mentioned.



When the horse has arrived at three and a half or four years, the tusks begin to appear in the under jaw. At four and a half the two primitive teeth at the two corners fall; and at five they are replaced by others exactly like the preceding—and it is by the cavity of all the teeth that a horse of five years old is known.



At six years the cavities of the corner teeth begin to fill and disappear soon: this change indicates six years.



To the age of seven and a half years, and progressively, the cavities of the other teeth disappear, so that at eight years complete they are all uniformly smooth and even.

After eight years you cannot ascertain the age, except from the form of the teeth. From eight to eleven years, an *incisor*, considered in all its length, and supposing it out of the horse's mouth, presents in its socket a horizontal oval figure—from eleven to fourteen it is more rounded. Beyond the latter age to seventeen it becomes triangular—and later, constantly preserves the oval vertical figure.

It must be observed, that past the age of fifteen all the teeth of the horse which were bent, progressively incline forward, and consequently this part of the jaw is larger in young than in aged horses. Such are the certain signs by which to know a horse's age; with a little attention and practice it is easy to ascertain it.

Management of Young Horses.

In breaking young horses the greatest care should be taken. This age has great influence on the rest of the animal's life. If exposed to a bad regimen, and too severe exercise, the horse thus overworked and badly managed, will be feeble and languishing all his life.

We must consider the phenomena belonging to this age, the care that should be taken, and the regimen to be observed, to render the horse serviceable.

In colts the lymphatic system rules, and the absorbent force appears to be very powerful. The head principally appears to be the seat of this system.

Animals, like man, are born with a head remarkably large in proportion to the other parts of the body, and they preserve it so during infancy. Thus the greater part of his maladies are seated there.

It is remarked that this age has the greatest sympathy with the digestive organs: hence the diarrhœa and worms, which are always in an inverse proportion to the strength of the animal. A moistening and relaxing regimen should be used; but to give tone to the stomach, they must be combined with tonics: oats, straw, and green food, are also good.

In warm climates, colts are fed with straw only, and it is observed that they are not subject to the strangles, and the *vives* (swelling of the glands)—their extremities are delicate, and their bodies handsome. Perhaps in other climates the same regimen would not be so good, because the straw of northern countries contains less nutritious juices than that of southern climates.

Maladies of Young Horses.—Manner of Treating them.

When young horses are sick, they should be given very little medicine: they should be restored by a good regimen. Purgatives, particularly, are very dangerous, and should be sparingly administered: they exhaust the animal and are generally injurious. If, however, a serious disease imperiously require it, he must be given *liver of antimony* two drachms, mixed with hay. This purgative is gentle, and preferable to *aloes*, and indeed to all others.

Salt should be used. For colts and horses of all ages, it is aperient, kills the worms, and makes the animal robust. Every eight days a good handful should be given, but with some precautions. If thrown in the crib it may give the horse a bad habit. As he is very fond of this substance he may amuse himself with licking the wood till he contracts the habit. It may be avoided by giving it him in a vessel or from the hand: the latter method is excellent to overcome the timidity of an animal so eminently subject to the sentiment of gratitude. Thus a horse may be rendered tame and docile, by giving him a substance which he desires with avidity, and which besides cannot but produce the happiest effects upon him.

Use of Salt.

From recent experiments salt appears to have the property of killing worms. These insects, placed in a solution of this substance, die immediately; and it appears to have the same virtue as the *empyreumatic oil* of M. Chabert.

Of Blood-Letting in Young Horses.

This should be sparingly practised. If they have a disposition to inflammatory diseases, we should give them acids. It has been generally observed that blood-letting provokes all the maladies of the eyes.

They should be moderately exercised, and rubbed with straw till two years of age, when they may be curried. We cannot too strongly recommend bathing the face, (*chaufrein,*) the under jaws, the head and legs, with cold water. It gives strength to the tendons, increases the cohesion of all the *articulations*, and prevents diseases of the legs.

To accustom Young Horses to Noise.

Choose the time when they are eating oats to make a noise about them. The pleasure they derive from eating combined with the noise they hear, will accustom them to it insensibly, and they will, in time, derive from it a certain pleasure.

Age favourable for Breaking them.

Young horses should not be broke before three years old. At this age they should be castrated, whether it be in spring or autumn. This operation was unknown to the ancients. The Hungarians first practised it. Hence, without doubt, is derived the appellation *Hungarian* (Hongre,) for a gelding.

Of Castration.—Its Ends and Effects.

The intention of this operation is to render the horse more gentle. Some advantages are gained in this respect; but horses lose much of their vigour by it. It must be confessed that castration may prevent many maladies, particularly those of the eyes. Care should be taken not to perform the operation till the horse is three years old, as he remains in the same state ever afterwards: he has not then acquired all the strength of which he would have been susceptible; and his chest, not being developed, remains thin and slender. It is then at three years, when the strength of the horse is developed, that the horse should be cut.

After the horse has attained the age of five years the *arterial* system prevails. He is then subject to plethora, peripneumonia, (inflammation of the lungs) lock jaw, particularly in summer, when the causes become more imminent. In this case a severe regimen must be observed: much straw, little hay and less oats; the horse should be put to grass. Diluents and refreshing drinks must be used. From this age to twelve the horse is in all his vigour. He passes from the *arterial* to the *venal* system, (*système veineux*,) of which the *vena porta* is the centre. A horse is said to be old when he has no marks on his teeth, that is, when he has attained his twelfth year. It is, notwithstanding, after this age to nearly sixteen, that the age of virility is marked in the horse: he arrives then at his maximum of strength, as a man at forty years, then decreases insensibly, passes to old age, and afterwards to decrepitude and death.

It is true that horses are now old at twelve years, because it is hastened by hard labour or a bad regimen; for they should not be so till eighteen or twenty years of age. Such is the result and influence of the state of drudgery to which we have reduced this most interesting of all animals.

The *venal system* is subject to maladies common to this temperament. The horse is afflicted with gripings and spasms of the intestines. Plethora frequently occurs in the colon (one of the large intestines.) He is equally exposed to putrid and psorick maladies—to the glanders particularly, which rarely attacks young horses, and to obstinate ulcers which are difficult to cicatrize. At this age tonic nourishment should be given—oats, and good hay, bathing and good grooming.

The intestines becoming sluggish, drastic purgatives should be used: aperients, sulphur, antimony and salt. The latter I cannot too much recommend; its use may prevent many maladies, and preserve the horse long in a good condition.

Different Symptoms of Old Age.

When the horse has been well treated, at the age of twelve years he can support the greatest fatigue, and consequently render the best services. We should not then reject a horse on this account if he be sound, because with care, he may last a long time. At thirteen the teeth begin to grow long—they change, as it were, their direction—they quit the perpendicular line and take the horizontal. The bony eminences become more salient, the eyes hollow, and though this is not always a sign of old age, it should generally be considered so: the skin becomes dry and hard, and loses that pliancy which characterises the preceding ages—the chest has less roundness and is perceptibly diminished.

Some white hairs in the mane, at the root of the tail, and sometimes in the eye brows, are striking signs of age.

The influence of the fluids diminish progressively, and it is not rare to see many of the cartilages become ossified. The aorta (great artery,) itself presents this phenomenon, and occasions the death of the animal.

Duration of Life in Horses.

The term of life in horses, as in almost all other animals, is proportioned to his growth. He lives seven times as long as he is attaining his complete growth, which is commonly four years—so that twenty-eight years may be considered the duration of his life. Nature, in her wisdom, has multiplied the individuals of different species in proportion to the duration of their lives, so that their reproduction may be equal to their destruction. She appears, however, to occupy herself more in their reproduction than in their preservation, which seems reserved for the care and foresight of man.

CHAPTER XIX.

Variation of the Seasons.—Its Influence on the Animal Economy.

Independently of the different heads under which we have considered the care necessary to be taken of the horse, as well as the precautions for his preservation and amelioration, there is one which must not be omitted, as it strongly influences his situation; it is the variation of the seasons.

A neglect of the considerations which we shall mention may be very pernicious.

There exist a number of causes which are influenced by the seasons. Hence proceed many maladies which judicious care and foresight may prevent, or at least weaken.

In winter, chronic diseases prevail: during this time the crisis is incompletely made; and often does not take place at all. The crisis is necessary, inasmuch as it is what generally terminates the disease. In this season we should generally abstain from all kinds of operations, as wounds then heal with great difficulty. The flow of humours is directed towards the head—hence catarrhal diseases. All the maladies arising from the thickening of the lymph are developed: the glanders, the farcy, water in the legs—all these resist generally the remedies employed. Cold contracts the skin and fibres; the animal's strength is concentrated, and he becomes fat: the absorbent force of the system has much energy; digestion as well as assimilation is performed well; respiration is more internal; the pulmonary action more accelerated, the air being more oxygenated.

From this cause necessarily results a greater quantity of animal heat in the arterial system of the lungs, which gives the animal the means of resisting the cold. Then the excretions are made by the urine, the cutaneous transpiration being weak is replaced by the activity of the *kidney*. Such are the effects when the cold is not excessive. But if the weather be much colder than common, it is extremely dangerous: the forces too much concentrated may produce spasms—there comes a trembling in all the members. If the animal remains constantly exposed to great cold he soon becomes insensible; the members are frozen—the blood is carried to the head which occasions sleep, and inevitable death.

This happens to man, as well as animals, when suddenly exposed to excessive cold without being accustomed to it.

Dangers of passing suddenly from Heat to Cold.

Independently of excessive cold, which it is sometimes impossible to avoid, there is an inconvenience not less dangerous and much more frequent—that of passing suddenly from heat to cold.

In winter, horses are sometimes brought from a stable closely shut, where there are a great number of them together with heaps of manure. This heat occasions a perspiration more or less strong, which, arrested by a too sudden transition to the open air, occasions a number of inflammatory diseases that are dangerous, and should be very differently treated from those which shew themselves in spring.

To prevent this, the stable should be kept tolerably warm in winter. The windows must be opened occasionally: that the temperature be good the heat should always be nearly the same. Such is the great advantage to be derived from a vaulted stable (ecurie voûtée.)

The same inconveniences arise from passing from Cold to Heat.

When the horse has been exposed to cold he ought not to be put in a very warm stable; for it is the alternate passage from cold to heat, or from heat to cold, that engenders almost all the maladies which prevail in winter, and destroy the health of the animal.

Manner of Feeding in Winter.

Much food may be given in winter: it is the only season in which it may be augmented without dangers, and that cordials may also be given. Indigestion is then very rare, because the forces being concentrated in the interior, the stomach has more action by the aid of the other organs which have all the same influence.

Maladies which prevail at this season: manner of curing them.

When the north wind blows long and with violence it may occasion inflammatory diseases; but, as we have said before, they must be treated differently from those of any other season. Blood-letting must not be resorted to; but diluents and emollients. Neither nitre nor acids are good.

It may be easily conceived how salutary exercise is in winter; if it were permitted to neglect it, it were better to do so in summer; as exercise facilitates greatly the cutaneous transpiration which is scarcely perceptible in winter, and prevents the stagnation of humours, the source of so many maladies. Besides the articulations are stiffened by the cold, and exercise puts them in play and supples them.

Precautions to be taken towards the end of Winter.

We should then begin to diminish the ration of forage, so that the horse may not be incommoded in passing from an abundant allowance to one much less. It should be gradually diminished on the approach of spring, without injuring his constitution by it.

Proper Regimen for Spring.

In spring give little hay and much straw—diminish also the allowance of oats. These precautions are essential to prevent inflammatory diathesis. The season most favourable to it is doubtless the spring, particularly when it is cold and humid: it is then most proper to temper the *arterial* system which prevails at this season.

This is the most favourable time for treating chronic diseases, such as the glanders, the farcy, &c. The crisis is then brought on with facility, and the mass is cleansed completely and without effort. Horses should be put to grass as soon as possible, without waiting for the season to be advanced. What is most to be feared are the cold rains. An observation has been made that the cold at this season is less supportable at 8 degrees than in winter at 12 degrees, of the thermometer of Réaumur.

Observations on Summer.

The bile prevails in summer. It is produced by the liver: and its seat is in the *vena porta*.

Horses exposed to the sun are in less danger when in motion than when stationary. The heat carries off the *serosity* of the blood; it becomes thick, and is arrested in the capillary vessels; the nerves are irritated: hence the lock-jaw, and particularly the spasm of the abdomen, occasioned by the irritation of the colon and obstruction in it. Acids should be used at this season: putrid maladies are to be feared, and serious operations avoided, as the gangrene makes rapid progress. Care must be taken to change the air and use bathing.

Autumn, the most fatal of Seasons.

Autumn has always been considered as producing the *black cholic*, or the *bile oxidée*, and may be considered the most fatal season. It is singular that the progress of nature in a malady well characterised, is absolutely the same with that which is shown in the different ages of life. In a malady well characterised a kind of heaviness seizes the head, the animal is overcome: it then passes to the lungs, and occasions a certain oppression, and consequently, a want of transpiration: and always terminates by the intestines or the bladder; in this way the crisis is always made. In colts, the mucous system which governs has its seat in the head; in adults the pulmonary organ becomes in turn the general focus, and in old ages the hypogastric region performs the principal part.

It is in autumn that epidemic maladies commit their ravages: at this season it is with man as with animals, the old finish their melancholy existence: we see them fall with the leaves, and it seems that the appearance of death in nature carries along with it those beings who are at the verge of their existence.

This is the proper time for *reforming* regiments of cavalry—the old horses are then most lean and unfit for service.

Proper Regimen for this Season.

Administer cordials and bitter substances. Bran must be avoided; it contributes to putridity, and favours all diseases analogous to it. The principles which we have established for the different seasons will be perfectly adapted to the difference of food; and it will be easy for persons recollecting our observations to make the application.

(To be continued.)

LOW PRICE OF WOOL.

The cause of the depression in the price of fine woolled sheep (says the New York Journal of Commerce) is partly to be found in the fact, that the business of keeping them has been overdone, and partly in the general depression of all prices. The last tariff, too, which some of the growers of fine wool supposed would advance their interests; has had the opposite effect. By the high duty which it imposed on coarse wool and woollens imported, this species of articles became more profitable objects of attention than the fine; until, at length, the market differs in price, between the finest Saxony, and the coarsest common fleeces, only ten cents a pound. It is but three years since our leading agriculturists were willing to pay three hundred dollars each for the fine Saxony sheep. The present state of things will soon bring down their value to as many cents, if it has not already.

We have seen a letter from a farmer in Connecticut, representing the condition of the wool growers in that quarter, to be disastrous in the extreme. The writer had on hand the crops of two years, besides a quantity of foreign wool, which he could scarcely sell at any price, and for sheep which cost him originally $100 a piece, he could not get much more than a dollar.

REMEDY FOR POISONED SHEEP.

Put a tablespoonfull of fine salt into the mouth of the poisoned sheep or lamb, and hold the jaws together till a sufficiency of it is swallowed; or, the salt may be dissolved in water and administered in the liquid form. The cure is immediate and sure. A farmer, who has tried this remedy for several years, has never lost a sheep or lamb since he first adopted it. [*Mass. Spy.*

(From the New England Farmer.)

DISSEMINATION OF FINE STOCK.

Mr. Russell.—Permit me by this opportunity to mention to you, the liberality of the Hon. John Welles of your city, who does not confine his efforts to the advancement of agricultural wealth to his own state. A few weeks since I had the pleasure to receive from him, a present of a very fine young Durham Improved Short Horn Bull, out of Admiral, presented to your Massachusetts Agricultural Society by Sir Isaac Coffin. This animal is of great promise, a fine specimen of the Durhams; much admired; and creditable to the stock of Mr. Welles at Dorchester.—Sir Isaac Coffin's efforts to disseminate this valuable race of Cattle, are remarkably seconded by this gentleman, who has for *many years*, sought to improve the native cattle of the country.

To the great patron of all that is good, the Pataoon,* I am still in debt—his liberal efforts are continued to introduce these animals into this state, and to the farmer, none are so valuable, or return him so large an income in so short a time for his labor. Very respectfully. L. Jenkins.

Canandaigua, N. Y. Sept. 16, 1829.

(From the British Farmer's Magazine.)

On the Present State of some of the Improved Breeds of Cattle of this Kingdom.

Sir,—I am about to enter on that part of my subject which it will scarcely be possible for me to treat candidly, and according to my honest conviction, without, in a great measure, encountering particular prejudices, and in some degree, I fear, affecting particular interests. But an endeavor to dispel prejudice needs no apology; and where the support of particular interests is hurtful to the community at large, a sacrifice is required which, if not yielded to the salutary demands of rational reform, will ultimately be exacted by the uncompromising demands of stern necessity.

The result of the observations I have made on what are generally considered our two best breeds of cattle, the improved short horns, and the improved Herefords, is on the whole much the same; and while I find that the two individuals to whom we are indebted for them acted in precisely a similar manner, under circumstances bearing a strong resemblance, so I have satisfied myself that the results which do not in the least vary, are to be traced to one and the same cause. Originally possessed of great powers of discrimination, Mr. Colling and Mr. Tomkins were enabled, at certain periods, to avail themselves of the advantages to be derived from some superior animals which it was their good fortune to obtain; and in these animals we find the foundation of their several stocks. But though to their excellent judgment were apparent the great advantages to be derived from such animals, with which to commence the business of breeding, it was not till a later period that they became sensible of the absolute necessity there existed in the outset of such an undertaking of investigating the merits of their animals in matters not to be detected by the eye, and which, in the absence of positive information, time and experience alone could discover. It will be obvious that I allude to certain constitutional peculiarities, which I am convinced were at first slightly or not at all regarded by either of these gentlemen. Having obtained the animals from which their celebrated stocks descended, which animals, from the difficulty of obtaining them, we might reasonably conclude, did we not know the fact, were few in number, they proceeded to breed from near affinities, a matter, as it appeared to them, not only of necessity, but of prudence also; for meditating the lead they were likely to take, as breeders, the more independent they appeared of others, the more advantageous and lasting was their reputation likely to prove. To these circumstances, I conceive, may fairly be ascribed the extent of an evil from which breeders now suffer so generally, viz. a constitutional peculiarity and defect, to which it is owing that many animals do not breed at all; and that others produce only, at distant periods, a sickly and unprofitable off-spring. Experience of the disappointment and loss thus incurred is unfortunately so universally possessed by the owners of high-bred stock, that few will be found to deny the existence of the effect, though many will be disposed to differ with me as to the cause. It is therefore necessary that, as clearly as it is in my power, I point out some circumstances which have had considerable weight in inducing me to adopt the opinion I entertain on this subject; but I confess, that so difficult is the inquiry, from the inaccessibility of the evidence necessary fully to establish my correctness, that I rather hope to make out a case which shall urge to useful inquiry, than to establish the important fact which has engaged my notice. The circumstances to which I would first obtain attention are connected with the improved short-horns; and in order to refresh my recollections on the subject, I have very diligently perused Mr. Coates's Herd Book, in which I find ample confirmation of my previous impression, so far as the period to which his publication brings the account of the short-horns; but it will be obvious that any information on the subject, subsequent to that period, must depend on individual contribution, which it is improbable I should ever be able to obtain, because neither do men readily give themselves trouble to answer what they consider unmeaning, perhaps impertinent inquiries, nor do they willingly publish the history of disappointments and losses.

In the account of Mr. Colling's *originals* from which the bull Comet was bred, and, in fact, from which most if not all of the long pedigrees are derived, I find the following statement of the produce of his cows:—Favorite, or Lady Maynard, produced six calves, one of which, a heifer, did not breed, another heifer produced only one calf, and a third, produced only two. Phœnix, a fourth, produced four calves; Young Phœnix, a granddaughter of Favorite, produced three; and Venus, another granddaughter, produced five; but Mary, Venus's only daughter, is not recorded as having bred at all. With these facts before me, am I rash in stating Mr. Colling's stock to have been in the very outset bad breeders? Every unprejudiced and impartial person must admit that I am not. But it may perhaps be objected, that these accounts are not correctly given in the Herd Book. To such objection I would reply, that if they can be shown not to be correct, I must of course give up so much of my case as depends on them. But I conceive the accounts are correct, for the following reasons: they are given by Mr. Coates, who frequently saw the animals, and whose general knowledge of short-horns deservedly established him as an unerring authority on such matters; and there can be no reason to suppose he exercised less diligence or exactness in obtaining and furnishing accounts of the animals to which, more than to any others named in his work, curiosity and attention were directed on account of their descendants. For these reasons, and because there are persons interested to have corrected Mr. Coates, had he been in error; who have remained silent, I assume that the accounts are correct. It seems, then, that with a stock few in number, and bad breeders, Mr. Colling commenced breeding from *near affinities;* and it is equally certain that the breeders who succeeded to his animals have, in many instances, pursued the same system; and the consequences I fearlessly pronounce to be general degeneracy, evinced in barrenness of the female, and impotence of the male—in tendency to consumption—in many cases to scrofula—in the production of a race of animals with long weak backs, long legs, and light ribs and carcasses. It is quite necessary I should in this place state I can point out a considerable number of exceptions to this description; without such a saving clause, I know not what evils I might not reasonably dread from the angry feelings of those who dare not open their eyes to the truth.

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* Hon. S. Van Rensselaer, of Albany.

But to return to Mr. Colling. He, I doubt not, soon became sensible of the disadvantage under which he laboured, and sickened at each new disappointment and loss. For his short-horns he thought he could not obtain a cross with their congeners, sufficiently good, and accordingly he tried various experiments with other breeds. Of these crosses only one succeeded, and to the circumstances connected with it, I particularly wish to call attention. I do not here desire to revive the old question of pre-eminence between the pure blood, and the alloy which resulted from this cross; but some of your readers may now learn, for the first time, that in Mr. Colling's sale the following prices were obtained for cows and heifers bred from the pure short-horn and the polled galloway:—for Lady (fourteen years old) 206 guineas; for Laura, her daughter, 210 guineas; for Countess, another daughter, 400 guineas; for Young Countess, a grand-daughter, (two years old,) 206 guineas; and for Lucilla, a calf, daughter of Laura, 106 guineas. These prices were obtained in a fair public sale, and at a time when great pains were taken to lower the Lady tribe in public estimation. They may therefore be considered as strong proofs of the excellence of the animals themselves, and of the reliance which was placed in Mr. Colling's judgment. But it is for another purpose than that of extolling what I consider to be our best family of short-horns in the present day, that I have cited Lady and her produce. I wish to contrast them as *breeders* with the pure race from which, on one side, Lady was descended. Lady, be it recollected, was a daughter of Phœnix, before mentioned as having bred four calves. On the dam's side she inherited the pure blood of the family I have called bad breeders; on the sire's she had a cross, he not being a pure short-horn. From the Herd Book it appears Lady produced six calves; Countess, her daughter, eight; Laura, another daughter, four; and Selina, her granddaughter, ten. Thus, taking the highest in number of the produce of three of the pure blood, viz. Favorite, her daughter, and granddaughter, we have fifteen calves, while three cows of the alloy, standing in the same relation to each other, produce twenty-four. From this statement, I consider it just to infer, that the cross had a beneficial tendency to render Mr. Colling's animals better breeders; and, though I do not now recommend a similar cross, the course I mean to propose will be consistent with the principles which I consider to have actuated Mr. Colling. But in this place I must hazard a remark which I conscientiously believe myself justified in making. Mr. Robert Colling, it is well known, bred extensively from the same stock as his brother, with the exception of the alloy, one animal only of which I believe appeared in his sale. He bred also very much from near affinities. Now I believe I am justified in saying that the majority of animals purchased at his sale proved very indifferent breeders, degenerated much in their produce, and evinced general marks of deficiency in constitutional stamina. If I shall prove to be correct in the facts I have assumed, I think there will be little difficulty in obtaining the acquiescence of your readers in the following conclusion, viz. that the system of breeding *in-and-in* may not safely be pursued; because, except in the almost impossible case of a perfect animal, defects must be confirmed in a degree commensurate with the progress of perfection.

In the few remarks I shall make on the Herefords, I hope to escape the imputation of undue partiality, after having written so unreservedly of a breed of cattle which I myself possess. The high-bred Herefords are, in many once celebrated hands, greatly degenerating; they have lost size and stamina, while the yearly disappointments as to calves are truly appalling. It seems now to be pretty generally admitted that this state of things is to be ascribed to a foolish exclusive preference given to a particular blood, which has seldom failed to bring with it similar consequences. Unquestionably there are now as good Herefords as there ever were, where this fastidiousness has not prevailed, and the stocks have had the benefit of a judicious cross. Practical results bring excellent support to argument, and I received the following last year. I was told by an eminent grazier that the oxen of one of the most celebrated breeders in Herefordshire were worth less by five pounds a head than other similar beasts, because they required so much extra indulgence to get through the winter. "They are bred, sir," he said, "too fine; they have harped too long on the same string." Here, let me observe, I know no breeder who appears to act more independently on this subject than Mr. Hayton. He possesses animals derived from different quarters, and I think if he goes on judiciously to blend their various blood, he cannot fail to leave his rivals far in the rear. I could point our several similar examples among the breeders of short-horns, but entertain doubts of the propriety of so doing.

I find that if I lengthen this letter I cannot expect it will be inserted, and necessarily postpone my conclusion till your next. Henry Berry.

Pensham House, Pershore, Worcestershire.

HORTICULTURE.

DISEASES OF SILK WORMS.

J. S. Skinner, Esq. *Philadelphia, Sept. 28, 1829.*

Sir,—I have seen with regret the account which you have published of the mortality which occurred amongst the silk worms of the Misses Waties, of Sumpterville, S. C. Not knowing the particulars of the management adopted by them, it is not possible to point out the precise causes to which the loss of their silk worms is to be ascribed: but they may probably be found by referring to the 14th chapter of the "Silk Manual," published by Congress, in which the subjects of the diseases of silk worms is fully discussed.

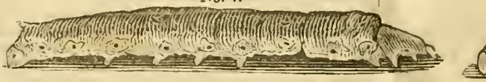
In section 5th, particular mention is made of the injurious effects arising from feeding silk worms on the leaves, from suckers, from the trunk, roots or principal arms of the tree, owing to their being full of sap. This source of disease is also referred to in No. 22 of the American Farmer, and should be carefully guarded against.

I cannot refrain from expressing my wonder at the declaration of Dr. Harden, that he experienced no injury from feeding the worms with wet leaves. His experience is opposed by every practical writer on the subject, and I believe by every other person who ever fed silk worms; and I have no hesitation in saying, that those who follow his example, will do so to their regret. So injurious is moisture to the worms, that I have uniformly known they did best upon leaves that had been some hours pulled, owing to the evaporation of part of their natural moisture or juice. Lastly, it cannot be too strongly urged, that free ventilation and circulation of fresh air in a silk worm laboratory, is indispensably necessary to secure the health of the insects. The importance of fresh air is very properly dwelt on in the Silk Manual, and provided for by ventilators in the windows, floor and ceiling of the apartments,—when the number of worms is great they are especially requisite. I have the honor to remain, very respectfully,

Your obedient servant,

F. Dusar.

No. 1.



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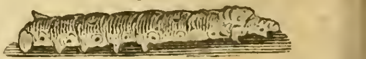

Gideon B. Smith, Esq. *Stateburg, S. C. Sept. 13, 1829.*

Sir,—In my last to you, I intimated, that should any circumstance or interesting experiment occur, worth communicating, in the further management of the Misses Waties' infant establishment, in the rearing of the silk worm, I would inform you of it. Besides the discharge of my obligation, the experiment I am about to detail may perhaps be considered interesting and important to others, as well as myself; at all events it affords me much pleasure to avail myself of this opportunity to return you my thanks (with the acknowledgments of the ladies named above,) for your prompt, satisfactory, useful and able reply to the queries addressed to you by me, a short time since. The experiment recently made, had for its object the comparative advantage of different kinds of food, and will go very far substantially to prove, that all those engaged in rearing silk worms, should *at least* commence a nursery of the white mulberry, if they have not already a sufficiency of that kind of food. You will recollect that I mentioned to you, a *second* hatching of eggs had commenced, and from *these* they hoped to make up in part, the failure of the first. The worms, however, did not appear in the numbers anticipated, but from those that *did*, on the 13th June they took indiscriminately 250 worms, (of three casts,) divided them equally, kept separate from each other, and apart from all others, and fed with care, one portion on the white, and the other on the red mulberry leaves. On the twenty-third day, *those* fed on the white commenced making their cocoons, and weighed one with another fifty-eight grains, (see drawing No. 1.) The worms fed on the red mulberry at *that* time, weighed *but* ten grains, and did not begin to spin for *ten* days after, *when they* weighed from forty to forty two grains only, (see drawing No. 2.) The cocoons of thirteen of the first named weighed 354 grains, whilst the same number of the last weighed 250 grains. Thus you will perceive, that had *all* the worms, attempted to be reared by these ladies, in the *first* instance, (mentioned in my last,) been fed on the white mulberry, they would in all probability have succeeded; *for* the disease which was so fatal, did not commence its ravages until *after* the period named, as being the difference of time in spinning, between those fed on the white, and those fed on the red mulberry. Should you deem these *facts* of importance, and look upon the experiment as *nearly* conclusive testimony of the superior value of the white mulberry, *not only* as a more grateful food to the worms, (which it evidently is,) but as facilitating the maturity of the worms, and adding to the size and weight of the cocoons, you are at liberty to use them at your discretion, and accept, sir, my assurance of

Great respect, &c.

Orlando S. Rees.

CULTURE OF THE GRAPE.

Mr. Skinner: *Harewood, 9th mo. 29, 1829.*

Enclosed is a letter I recently received from N. Herbemont, Esq. of Columbia, S. C. on the culture of the grape, and manufacture of wine. I think much valuable information on these subjects may be gained from his letter, by those, who, like myself have but little experience; and having permission to make any use of it I think proper, it is forwarded for publication in the American Farmer.

The grapes alluded to in his letter, and from which my wine was made last year, are natives; and I think fine varieties—they are great bearers; rarely rutting, and when perfectly ripe contain much saccharine matter. Last season my vines first commenced bearing, and as there was no probability of the grapes remaining on the vines until at full maturity, they were gathered several weeks earlier than was proper for wine, although at the time quite palatable. The wine promises to be very fine. This season the grapes were fully ripe (the same kinds viz: Catawba and Muncy red—I received them with these names, but it is almost impossible to point out a difference in any particular and I have pressed them together) when gathered, and I find (by no means owing to the season) that ¾ of a pound of sugar, raises the must higher than 2¼ pounds did last year. I shall be much pleased to find the wine of this vintage superior to the last. The past season has proved unfavourable with us, to nearly all kinds of fruit, but more particularly to our grapes. Four fifths of my Isabellas rotted, after attaining to full size; and perhaps nearly 1-3 of most other kinds. The Bland Madeira, very fine and entirely free from rot, but are even at this time, not ripe enough to gather.

I am respectfully, yours, &c.
Edward Stabler, Jr.

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Edward Stabler, Jr. *Columbia, S. C. Sept.* 9, 1829.

Respected Friend,—I am obliged to Mr. Allen Jones Davie, for procuring me the pleasure of your correspondence; for I make no secret of my being an enthusiast in the culture of the vine. I should have answered sooner your letter which I received about a week since, but I was much engaged in gathering the last of my grapes (the Bland Madeira or Rose grape) for wine and raisins. The grape you call "Perfume grape" I have never seen; but I got two cuttings of it last spring, which I grafted, and they have grown so well that I have very little doubt I shall see the fruit next year. If it be desirable I can send you one or two cuttings of it next winter with others. Although the name by which you call it may be a very good and appropriate one, I have called it "General Jones," or which is better "Allen Jones," which is the name of Mr. Davie's grand father, who first noticed this grape. This name suits the better, that it is also the first name of Mr. D. who is now bringing it to notice. I hope it may prove as valuable as Mr. D. anticipates. The choice vine to which Mr. D. alludes, may be the native one which I call "Arena," from its being abundant in our sand-hills, or one (origin not known) called "Lenoir," from the person of this name who first cultivated it near Stateburg in this state. This is a very superior grape not subject to rotting. It makes an excellent red wine. Or it may be my Madeira, which, if it were not liable to rot, I should be tempted to call the most valuable grape in this country. I once made very delicious wine from the Arena; the second trial did not succeed so well, from causes too long to give here, and I have now about ten gallons made last week, which I hope may be as good as the first. From one single vine of Madeira, I have made last week about twenty-five gallons. It is, however, a very provoking grape, for it rotted so much this summer, that instead of 1000 or 1200 gallons I had fair reason to hope I should make, I only made about 125. The wine it makes, and which I call "Palmyra," from the name of my farm where my principal vineyard is, resembles the kind of Madeira called the "Juice of the grape," which is Madeira without any addition of brandy. Several of my friends, too partial, no doubt, have paid it the same compliment as your friends paid to yours, viz: that it is the best American wine they have ever tasted. Many prefer it to Madeira of very good quality. I have always sold it at *three or four months old*, at $2, per gallon. I never put any brandy in it at all. as I think brandy deprives wine of one of its most valuable qualities, which is that sprightliness, and life which is seldom found in any of the foreign wines except the French. Yet, for want of good cellars, where no change of temperature is experienced, and also to accommodate ourselves to the vitiated taste of the country, which can only be changed gradually, I have thought it best to make strong wines instead of light ones, which, when sound are certainly preferable. This strength is obtained by an addition of sugar. This is added immediately after mashing the grapes and before the fermentation has commenced. I then suffer the whole to ferment in the vat from twenty to fifty hours, or more according to the temperature of the atmosphere. The must, being then separated from the murk, which is then strongly pressed, is put into a cask not filled by three or four inches according to their size. I then put three or four grape leaves over the bung hole, and load them with a double handful of moistened sand. This acts as a valve so as to be raised when the fermentation is very violent, and it immediately falls down so as to keep the vessel as close as it is prudent that it should be. When the fermentation begins to be more moderate, which is in a few days according to the temperature of the air, I add to the casks some of the must, so as to diminish by about half the vacancy first left in them. When by applying my ear close to the cask, I no longer hear the fermentation, I fill them again to within about one inch, and stop them close with a bung. I then make a gimblet hole on one side of the bung, about an inch or two from it, and this is stopped with a peg which is taken out occasionally to let the gas escape, which otherwise might burst the vessel. Every week or two after this, it is proper to fill up the casks; for the liquor settles considerably, and about two months afterwards, taking advantage of a clear frosty day, I draw the wine into other casks which have previously been fumigated with a sulphur match. The wine ought after this to be racked again once or twice a year, for one, two or three years, when bottling it would be proper. Some wines are not fit to be used for several years, others may be drank after three months, which is the case with my Palmyra. It improves, however, considerably as it grows old.

I was fully apprised of the formation of a society for the promotion of the culture of the vine in Maryland, and the officers of it have done me the honour, about a year since, to elect me an honorary member of their society. I had been for some time previous in correspondence with one of their members, George Fitzhugh, Jr. to whom I sent several times cuttings of various of my vines, and I find by the names of those in your letter to me that he, or the society, sent you some of them. Those from me are "Madeira"—"Bordeaux table grape," called by some here "Hungarian," "Bose." This I named from a gentleman in France. "Sauvignon," "Olivette," "Melier," "Deo-data." This I named after one of my brother's Dieudonne," and "Lafitte." This last was brought by a friend of mine from the vineyard of Lafitte, which produce the highest priced claret in France. It does not, however, succeed with me as yet. The Bose and Deo-data, having lost their number when sent among 264 kinds by Mr. Bose, I gave them these names. I am much obliged to you for your kind offer of cuttings of such vines as I may want and you may have; but the obligingness of Mr. Fitzhugh has scarcely left me any thing to desire in this respect. I have not, however by their names at least, the following: Schuylkill muscadel, Muncy red, Imperial, White pulp, Coral, German grape, Black Prince, Tenier, Damascine, Vevay, Rhenish grape. If you can therefore, very conveniently send me two or three cuttings of such of those as are worthy of cultivation, I shall be much obliged to you. It would be most unreasonable in me to expect that you could send me any of those which you are to receive from the Mediterranean this winter; yet, enthusiasts, you know, have no moderation, if you could give me one of each long enough to graft, I may be able the following winter to return you four for one of the same But, I pray, do not do it unless it is most convenient. I can send you any quantity of cuttings of my Madeira, and of the Arena, and a few of the Lenoir. I have all the kinds mentioned in Alphonse Loubat's catalogue, fifty-eight in number, and I can send you a few of some of them if you desire it. As I know, as yet, very little of their good or bad qualities, it would be better probably to wait a year or two till I can have formed an opinion of them.

The grapes are not usually separated from the stems. It is even asserted by most writers and practical men on this subject, that the stems being fermented in the vat with the berries, give the liquor a greater durability and render it more wholesome, by imparting to it a slight degree of astringency. The stems undoubtedly contain much tannin. This is, however, not an undisputed opinion; for many are in the practice of separating them, by which means they pretend the wine is much more delicate and pure. This may be true, and yet not the most desirable; for their opponents assert that wine made without the stems are liable to many disorders, which the fermentation with the stems prevent. As is generally the case with disputants, the truth lies probably between them. My practice is to put in stems and all, except such bunches as have the berries very scattering, in which case I separate the berries, and throw away the stems. In gathering the grapes, the rotten berries and such as may not be fully ripe are carefully cut out, and in doing this the few scattering berries which may be on the bunch are easily pulled off and deposited in the vessel intended to receive them. No spirit used; but sugar if necessary as mentioned above. The must of my Madeira and of the Arena, usually weigh by the aréometer ten degrees, a little more or a little less, according to the degree of maturity; ¾ of a pound of sugar added per gallon, *by guess*, is generally sufficient to raise the weight to fourteen or fifteen degrees, which is very fully as much as is proper to add. Less would probably make a better and lighter wine; but it would perhaps have to be kept in a cool cellar. Great force is usually applied to press out all the juice. A screw press is the best; when a large quantity of wine is made, it is best not to mix that drawn from hard pression with that proceeding from the vat without effort. That from the press is harsher, I never have kept them separate.

I am surprised at your mention of 2½ lbs. of sugar which you added to your must, (I presume it is per gallon) either the Catawba and Muncy are poor grapes, or they were far from ripe.

To make good wine, the grapes ought to be suffered to attain the highest degree of maturity possible; far beyond that which is reckoned sufficient to make them pleasant to eat. It is during the latter degrees of maturity that the grapes acquire their full portion of saccharine matter, and this fine flavour and aroma, by which some wines are justly celebrated and distinguished from the great bulk of wines. It is better to suffer some loss by bees, wasps and other insects, than make an inferior wine. As you seem in earnest in the cultivation of the vine, let me recommend to you to spare no pains or expense in the selection of a proper spot for your vineyard. There are spots in every country less exposed to late spring frosts than others. These are to be preferred. Although we find the native vines growing in all sorts of soils, and particularly on moist banks of water courses and marshes, and that the imported ones may also grow well in such situations; they nevertheless seldom produce a good rich fruit, free from rot or mildew, except on a loose deep soil, either naturally so or made so by art. The place of a vineyard ought also be high, airy, and as distant from forests as possible, that a free, dry air may circulate among the vines. The vines, ought also in this country be planted at considerable distances from each other, on account of the great luxuriance of their growth. I have great doubts of the correctness of the general opinion in France that no good wine can be made but from such grapes as are raised near the ground. This you will think, perhaps, a most vile piece of presumption; but what may be true in a cold climate, like that of the North and middle of France, may not be true here. It may be necessary there to have the heat reflected from the ground to mature the grapes, not even as fully as they may ripen here at the height of seven or eight feet.

I have written a short treatise on the culture of the vine, &c. for the Southern Agriculturist, published in Charleston, S. C. and in this monthly periodical, are occasional pieces of mine on this and other subjects. My views are there more fully expressed than they can be in the compass of a few letters. It might be, perhaps, an advantage to you to be a subscriber to it, and take it from the first; for my essay is the very first article of the six or seven first numbers. It was begun last year. The price is $5 per annum, payable in advance. Application to be made to the publisher, A. E. Miller, Charleston, S. C. My opinion of the raising of vines from the seed is, that it only suits those who are extravagantly zealous in the cause; for the purpose of obtaining new varieties at the expense of a great deal of trouble, patience and perseverance. Like most other fruits, the vine seeds do not produce grapes, otherwise similar to the parent than its botanical characters. It may chance, however, to be superior. Another great disadvantage is that the greatest part of the seedling vines only produce male flowers, and are not, therefore, fruit bearers. These, nevertheless, as also the inferior ones of the bearers, need not be left; but may be used to graft the valuable ones on them. In this manner I propagate very advantageously foreign and other grapes, by grafting on native vines dug out of the woods, or even while standing in the woods. This gives me the first year very large vines, and frequently fruit. I usually graft three or four inches below the surface of the ground, by splitting the stock and inserting in the common way a scion with two or three buds, covering the remaining part of the cleft with a bit of leaf or rag to keep the earth from falling into it, I cover the whole with earth so as to have it a little higher than the surrounding surface. When the stock is too large to be cleft, I bore one or more holes in it with a gimblet, trim the scions so as to fit the holes, leaving a little shoulder of bark on them, drive them in gently and cover the whole with earth as above.

The vine is, as far as I know, the only plant that will take by grafting without the precaution of making the outside bark come in contact with each other, and therefore it does well according to the last mode mentioned. I prefer grafting late, if the scions have been kept alive without growing, till the buds of the stock are ready to burst open. I have even grafted when the stocks were in leaves, and shoots a foot long.

Yours, with respect,

N. Herbemont.

THE SINCLAIR BEET.

Mr. Russell.—The seed of Sir John Sinclair's new variety of Beet, which I procured of you, was planted in June—they have very far exceeded my expectations, and are the most luxuriant vegetable I ever saw; the leaves of some of them occupy 5 feet of ground, and the largest, on measuring I found to be 2 feet 6 to 2 feet 9 inches in length, and 12 to 15 inches stalk—of 2½ to 3 inches wide—they bear frequent cropping, taking the outer leaves and preserving the centre or crown, The great value of this vegetable is in the top and not the root.—They are of early maturity and easy culture—appear to stand the drought remarkably well, and continue in the same thrifty condition throughout the season. The leaf is as tender as lettuce; this with the stalk, I have had boiled and served up like spinach; which it far excels, in my opinion. It is an estimable product of its kind, and richly deserves cultivating.—I hope it may be in your power to procure, and forward me some more of the seed another season.

Yours, very respectfully,

L. Jenkins.

Canandaigua, N. Y. Sept. 15, 1829.

INTERNAL IMPROVEMENT.

ROANOKE TRADE.

An interesting article on this subject, extracted from the Norfolk Beacon, will be found in our present number. [See Amer. Far. No. 26, Vol. 11.]

We are happy to find that our views as regards the boat arrangement from Elizabeth City throughout to the falls, as given in the Minerva of the 28th of May, have proven to be in accordance with those of the Virginia and North Carolina Transportation Company. A boat of the dimensions now constructing, will be peculiarly suited to our river, and may be run at almost any season of the year. If the Petersburg, with a draught of more than five feet of water, could run at a more than ordinary low state of the river, scarcely an obstruction can be anticipated to a boat which will draw only *thirty inches*. In the mean time, we observe that our friends of Petersburg do not intend to "surrender the ship," without a spirited struggle.—The Rail-road has been determined upon. What success awaits the enterprise must, of course, be developed by experiment. For our part, adverting to the trite, but true maxim, that "opposition is the life of business," we are always willing to see a fair and honorable competition for it. Here and about here, judging from certain appearances at this time, we should say that the tide of public opinion sets down the Roanoke. The lower part of our little town which borders on the river, and which for years has been a mere barren, once more boasts the sound of the hammer and saw. A commodious and extensive warehouse is now erecting and will soon be sufficiently completed for the reception of produce, and we understand a second one at least is now designed. We shall continue frequently to notice this all important and interesting subject. [*Halifax*, (*N. C.*) *Minerva.*

LADIES' DEPARTMENT.

(From the Phila. Journal of Health.)

The Summer Complaint of Children.

Nearly one-fourth of all the deaths among children under two years of age, in the middle and southern states, are reported to be from the summer complaint alone. To this appalling fact, the attention of parents ought frequently to be directed, more especially as the disease in question is one, the prevention of which lies almost entirely within their own power.

Its chief causes are heated and impure air and errors in regard to diet; hence the disease is almost solely confined to large and crowded cities, and is most prevalent among the children of the poorer classes, who inhabit narrow and confined streets, courts and alleys,—who are badly nursed and have not a sufficient attention paid to the cleanliness of their persons and clothing. In the country it is seldom met with, excepting in the neighborhood of marshes, or of low, wet, and otherwise unhealthy situations.

It must be evident, therefore, that one of the most effectual means of preserving children from an attack of this complaint, is to remove them from out the heated and impure air of the city, to a healthy situation in the country, before the extreme heat of the summer commences. It is remarked by Dr. Rush, that he never knew but one instance of an infant being affected with the disease who had been carried into the country in order to avoid it.

But, unfortunately, this change of situation cannot in every instance be effected; the circumstances of a large portion of the community being such, as necessarily to confine them, at all seasons, to the spot in which they happen to reside. Even when a removal from the city cannot be accomplished, though the chances of success are lessened, yet still much may be done towards the prevention of the disease. In such cases the children should occupy, always, the largest and most airy room in the house; if possible on the second floor. The room should be guarded from exposure to the direct rays of the sun, while a constant and free ventilation is kept up. The utmost cleanliness must also be observed in the room, as well as in the person and clothing of the children.

During the summer months, the daily use of the cold or tepid bath, while it ensures the cleanliness of the skin, is a very powerful means of preventing this disease. It should not, therefore, be neglected, provided there is no circumstance connected with the health and constitution of the child to forbid its employment.

In clear weather, and in the cool of the day, children should be frequently carried abroad, in the most open and healthy parts of the neighborhood; or when the parents have it in their power, a considerable benefit will be derived from repeated rides in an open carriage, into the neighbouring country.

The numerous steamboats upon the river Delaware, which pass at all hours between this city and the Jersey shore. present a very efficient means of enabling children to enjoy all the benefits of the pure, fresh air; and at so trifling an expense as to be within the reach of almost every parent.

The clothing of children should be loose and of a soft texture; and carefully accommodated to the state and changes of the weather, so as to preserve the body of an *even and moderate* temperature. As already remarked, cleanliness of the clothing, as well as of the skin, is always indispensable to the health and comfort of children, and should, therefore, be sedulously attended to.

The breast milk of the mother is the proper and only natural food for an infant; "nature does not afford, nor can art supply, any effectual substitute for this fluid." To it, therefore, should children be almost entirely confined, if circumstances will allow of it, until the process of teething has made some progress. After weaning, their diet should consist of such simple articles as are nutritive, easy of digestion, and but little stimulating; all spices or seasoning, with the exception of salt, all sorts of cakes and pastry, butter in every form, unripe and decayed fruit, and distilled or fermented liquors, must be carefully avoided.

When the disease is present, *many* of the foregoing directions are equally important to ensure its removal, as they are previously, in order to guard against its occurrence. The circumstance of their being, in general, so little attended to, is one cause of its very great fatality.

Parents should, in this case, as in every other complaint of children, be upon their guard against the pretensions of empiricism. Let them be assured that no remedy can be devised capable of curing effectually the summer complaint of children, unless the latter are removed from the influence of those causes by which the disease has been produced: when such removal is effected at a proper period, the lives of their children may in almost every instance be preserved.

"No in-door household work is repugnant to a modest and sensible woman. The shuttle and the needle are the only occupation of her leisure; the neatness of her house is the work of her cares; and it is her glory, either to attend a sick person, or prepare a repast." [*Chinese Maxims.*

SPORTING OLIO.

(From the American Turf Register and Sporting Magazine, No. 2.)

REED BIRD, RICE BIRD, OR ORTOLAN.

Mr. Editor: *Philadelphia, Sept. 7, 1829.*

These delicious little visiters are now congregating in great numbers on the marshes of the Delaware and Schuylkill, and in a few days they will have arrived to that point of pinguidity which gives them their deserved reputation among the delicacies of the table. They arrive in Pennsylvania in the month of April, and after a short sojourn in the grass field, steer their way to the north, where they breed.

On their arrival at this season they are sometimes quite fat, but on their return, which is the beginning of August, they are remarkably lean and indifferent. They remain in the stubble fields in small flocks, feeding upon the seeds of arsesmart and ragweed, until the reed begins to ripen, and then it is they acquire that plumpness for which they are so remarkable. When they come on from the south, the male wears his winter plumage, which is black, with a white spot on the head, a stripe of white on the back of the neck and back; the female retains the autumnal colour. At this season, the amateur of nature's melodies, can be as much gratified with their delightful notes, as the gourmand will be with their flesh in the autumn. Their notes are few, but the intonation is more distinct than that of any other bird; it resembles the tones produced by a musical box more than any other thing to which I can compare it. But, after all, the music produced by the knives, forks and plates at a table, honoured by the presence of these little gentlemen, is incomparably superior to any other we have ever heard; nay, the very sight of them; strung up in dozens on the stalls of the Jersey market, *early* in a September morning, is delightful. To see their little yellow rumps (ready picked for inspection) protruding between their wings, like lumps of amber, is indeed a great temptation; but when we come to the eating of them, then it is that we need not much wonder at the extravagance of the poet (I forget his name,) who paid a guinea, which had been given him in charity, for one of them. In short, no man can say that he has tasted all of the best things, which a kind Providence has bestowed upon us, until he has eaten a dozen or two of these little birds nicely dressed. I am sure that if they had abounded in Greece, some of *their* poets would have told us, that they were a standing dish at Jupiter's table. I was about to say something about cooking them, but I do not know how a cook can go very wrong, unless she would do as did the Irish woman with the water melon—boil them. However, that part of the subject I would refer to Mrs. Rubican, or Mrs. Inslee, not doubting but what they could give quite a *scientific* account of it (as Dr. Kitchener says.) But where am I going to? I intended to give you some account of the history of the bird, but in fact have got to eating him, which I have no doubt, you can do as well as myself. Well, then, to my first intention.—They leave Pennsylvania and New Jersey at the latter end of September and beginning of October, if the weather becomes cold and stormy; but when it is mild they remain for a considerable time in the latter month. They take their departure, like most other birds, towards the night of a clear day. Almost all the birds which frequent the marsh having congregated into an immense flock a little after sunset, a few at first start up in the air, and in a few moments the whole flock will follow them by degrees, in a kind of spiral column, until they have all left the place.

This bird is one of the few that affords any profit to the shooter, inasmuch as they are shot for the *pot* and the *pot* alone. No gentleman sportsman would think of wading through mud up to his knees, and mostly above them, sneaking and creeping for two or three hours to get a shot at a flock of them; and, after they are killed, it requires an experienced eye to find them, their colour so much resembles the reed in which they are found. The best shot I know of is a twenty-five cent piece, which will purchase a dozen of them from those people who make it a business to kill them for the market.

Yours, respectfully, C.

N. B. These birds are remarkably fond of millet, and some of our farmers along the Delaware sow a small strip of that grain near to the water, for the purpose of shooting them conveniently.

[The interesting bird above alluded to, is the *rice bunting* (*emberiza orizivora*) of Wilson, and is represented in the second volume of his splendid work, plate xii. figures one and two. It is the *ortolan de ris*, of Buffon; *rice-bird* of Catesby; *boblink*, of the eastern and northern states, and the *rice* and *reed-bird*, of Pennsylvania and the southern states. In Jamaica, it is known by the name of *butter-bird*. The following is its description as given by Wilson.

"The rice-bunting is seven inches and a half long, and eleven and a half in extent; his spring dress is as follows: upper part of the head, wings, tail and sides of the neck, and whole lower parts black; the feathers frequently skirted with brownish yellow as he passes into the colours of the female; back of the head cream colour; back black sconced with brownish yellow; scapulars pure white; rump and tail consists of the same; lower part of the back bluish white; tail formed like those of the woodpecker genus, and often used in the same manner, being thrown in to support it while ascending the stalks of reed; this habit of throwing in the tail it retains even in the cage; legs burnished flesh colour; hind heel very long; bill a bluish horn colour; eye hazel. In the month of June, this plumage gradually changes to a brownish yellow, like that of the female, which has the back streaked with brownish black; whole lower parts dull yellow; bill reddish flesh colour; legs and eyes as in the male. The young birds retain the dress of the female until the early part of the succeeding spring; the plumage of the female undergoes no material change of colour."]

MISCELLANEOUS.

America as a Manufacturing Country.

We frequently meet with the assertion that America cannot become a manufacturing country.

We are opposed to the principles of that system which builds on one branch of industry at the expense of another; but we believe that if things were left to take their natural course, America would in time, become a very great manufacturing country. Our reasons are as follows:

1st. Our soil is so fertile that it will support more men than it will employ. Agriculture and commerce alone, cannot give full employ to our extra laborers and surplus capital.

2dly. We possess abundance of the raw materials for many branches of manufacture, abundance of water power, abundance of coal and iron, abundance of the materials for constructing manufacturing buildings and machinery. Our climate is healthy, our people are industrious, skilful, and enterprising.

Those who say America can *never* be a manufacturing country, have not paid proper attention to its history, or they would know that it has *always* been a manufacturing country. Let them look into Sir Joshua Child's book, which was published a hundred years ago, and they will there find that the people of Pennsylvania "were *forced* to make part of their clothing for themselves," contrary to their wishes, "*because*," as the author says, "they could not sell enough of their agricultural produce to purchase a sufficiency of apparel."—We give his sense, not his words. Even at that early period, full employment could not be found for labor and capital in agriculture and commerce. In looking through the papers of that day, we have found frequent advertisements of looms, some of them for weaving ornamental stuffs, though that was at a time when there was no duty on goods from England. Since that period the English have made so great improvements in the application of scientific power, as to be able to sell goods to advantage in Hindostan, where labor is at its lowest natural rate. But Americans are never far behind the British in the application of scientific power to useful purposes. As the two nations speak the same language, a discovery made in the one, soon becomes the common property of both.

It is from witnessing the ill-success that has attended many of our efforts at manufacturing, that some reasoners have inferred that this branch of industry cannot flourish in America. They ought to recollect:

1st. That many of our manufacturing establishments owed their origin to political circumstances of a temporary nature. They were *forced* into existence by the non-importation act, the non-intercourse, the embargo, and the war.

2d. That as hot-house plants, they have been delicate, and nourished by high duties.

3dly. They have had to contend with the paper money system, which, by raising prices, makes the country a good market for foreigners to sell in, and a poor market for them to buy in.

4th. They have been carried on to a great extent by corporations, which can never conduct affairs as advantageously as individuals.

5thly. Many of them have been founded on *credit* instead of on capital. While the banks were, on the one hand, raising up manufacturing establishments by loans of credit, they were, on the other hand, preventing these establishments from being successful, by their excessive issues of paper, which raised prices so high as to enable the foreigner to undersell the domestic producer, in spite of additional tariffs.

The friends of the "American System" as it is called, seem to take merit to themselves for all the manufacturing industry in the country. Well tell them, if no duties had ever been imposed, except for revenue, we should have had cotton mills and woollen mills in abundance. Capital is always seeking investment, and labor advantageous employment: and that capital and that labour which could not have been profitably employed in agriculture and commerce would have found their way to manufactures. The principle is as certain in its operation as that by which water finds its own level.

Again we say, abolish every protecting duty, and though such an act would ruin all at present engaged in manufacturing it would not put an end to this branch of industry in America. We have great advantages over England in agriculture, having a greater extent of fertile soil. Yet, if the corn laws were repealed to-morrow, wheat would still be cultivated to a great extent in England. In like manner England has great advantages over us as a manufacturing country, having more surplus capital, more laborers, more science, more skill, and a climate, in some respects, better adapted to manufacturing operations. Yet, without duties on imports, we should manufacture probably three-fourths of the articles we should want. It has always been so. Even when our foreign commerce was most extensive, nine-tenths of the consumption of the country, was of domestic produce. From the nature of things it always must be so. Every country draws the greater part of the means of its support from its own internal resources. Foreign commerce vivifies domestic industry.

If we had suffered manufactures to grow up in the natural way, we should never have had complaints from the manufacturers.

THE FARMER.

Baltimore, Friday, October 9, 1829.

☞ The Journal of Health.—Under this title a very useful publication of sixteen pages, octavo, twice a week, is issued in Philadelphia, under the supervision of experienced and benevolent physicians, at a price which places it within the reach of every family, $1.25—and in terms so plain as to be within the grasp of every reader's comprehension. Such tracts as these, written in plain style by men of talents and practical judgment, addressed to the condition and wants, the feelings and health, of all classes, by teaching them the great value of cleanliness and temperance; will do more good than all the myriads of religious tracts that so few people read. Shewing the immediate and horrid effects of intemperance, these *practical* publications will save thousands from drunkenness, and thus diminish the growth of vice and immorality by plucking up their roots. They teach men how to live like men—and consequently prepare them to die like men—with fearless resignation to the will of heaven.

The agents for the Journal of Health, in Baltimore, are Messrs. W. & J. Neal.

☞ Influence of Cattle Shows.—A firm in Boston, which slaughters and packs more beef than any other in New England, says the *Daily Advertiser*, represents the quality of neat cattle to have improved more than *ten per cent.* under the influence of Cattle Shows, for a few years past. Equal improvement has also been made in Sheep and Wool, in Swine, and numerous other growths of the farm.

A work is now in the Press, and will he ready for delivery to subscribers and others, early in October, entitled

A TREATISE ON THE VINE;

Comprising a copious and complete dissertation on its culture, management, &c. and on the process of making wine,—together with accurate descriptions and remarks on the properties of about 200 varieties of grapes best suited for wine and the table, with a careful arrangement of the synonymes.—A topographical list of all the most celebrated Vineyards throughout the world, and particularly of those in the different departments of France, and the mode of culture pursued in those of most note.—This work will comprise all the important information contained in the *new edition of Duhamel*, published in 1825; also that contained in the *Nouveau Cours Complet d' Agriculture*, edited by members of the Royal Institute of France; together with such additional information as is found in the works of Rozier, Chaptal, Jullien, McCullock, Forsyth, Speechly, Berneaud, and other authors of authority.

By William Prince,

Proprietor of the Linnæan Botanic Garden, near New York.

Vice-President of the New York Horticultural Society; C. M. of the Linnæan Society of Paris, of the Horticultural Societies of London and Paris, and of the Imperial Society of the Georgofili at Florence; honorary member of the Massachusetts Horticultural Society, &c.

N. B. The price of this work will be $1.25, or $1 to those who remit in advance—and it can be sent per mail, at no great expence.

Also, was published recently by the same author, a short treatise on *Horticulture*, pp. 206.—Embracing descriptions of about one thousand species and varieties of fruit and ornamental trees and shrubs, bulbous flowers, green-house trees and plants, &c.—Price one dollar. Any person remitting the cost of five copies of either of the above works, shall receive the sixth *gratis*.

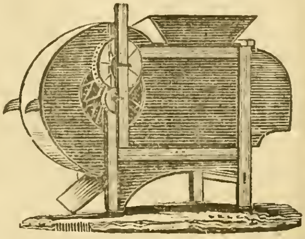
Catalogues of the establishment may be obtained of the different agents, or by application direct to the proprietor;—fruit and ornamental trees, flowering shrubs, bulbous roots, green-house plants, &c.—Orders for which can be forwarded, *post paid*, per mail, or left with T. & J. Swords, New York, of whom catalogues may be obtained *gratis*.

AGRICULTURAL REPOSITORY.

SINCLAIR & MOORE,

Pratt street Wharf, Baltimore,

Have recently received from Europe, a fresh supply of White Clover Seed, White Cauliflower, Early Purple Cape Brocoli, Early York Cabbage Seed. And are now receiving many kinds of Garden Seeds from their Horticultural Establishment, near the city, which have been raised with care, and can be recommended as pure and genuine. They are also expecting in a few days further supplies of Seeds of the present year's growth, from regular seed raisers. Also on hand, Orchard Grass, Clover, Timothy, Herds Grass and Lucerne Seed.



In store an extensive assortment of AGRICULTURAL IMPLEMENTS, among which are their highly IMPROVED WHEAT FANS; also the common fan and small box fans.

CORN SHELLING MACHINE improved, which will shell 250 bushels per day by hand, and may very easily be attached to a common horse power, or to water works, by which the quantity of work per day may be much increased.

They are also manufacturing a CYLINDRICAL STRAW CUTTING MACHINE, improved from the English plan, which cuts straw, corn tops, &c. with great rapidity by one hand, and may be attached to a horse power. This is a very effective machine and can be recommended with great confidence to the public. It can be adjusted instantly to cut any length from half an inch to one and a half inches. Also five other kinds of Straw Cutters, at various prices, according to size and mode of construction.

OF PLOUGHS, the assortment is general, embracing most of the improved kinds in use in this part of the country, and adapted to the different kinds of land and purposes of the farmer, viz. The Self-sharpening Steel point Plough, which performs well, and affords economy in repairs worth the attention of Agriculturists—The McCormick Plough, with wrought and cast Shares—Davis' Improved Ploughs, with wrought and cast shares. Woods' Patent or Freeborn Ploughs, cast Shares—Barshare Ploughs, with wrought iron and steel Shares, the kind best adapted to rough lands.—Subsoil Ploughs, Shovel Ploughs, Scarifiers, Harrows, Cultivators, &c. &c.

THE NURSERY which has the constant attention of the senior partner of the concern, is in a flourishing condition, and contains sixty varieties of Apples, forty varieties of Peaches, varieties of Pears and Plums; Apricots, Nectarines, Figs, Grape Roots and Cuttings, Gooseberry, Currant, Raspberry, Strawberry Plants, &c. with some Ornamental Trees and Shrubs, Thorn Quicks, &c. &c. For more particular information of the kinds and character we refer to the catalogue, which may be had gratis, at our store or at the nursery.

All orders promptly attended to, and trees put up so as to carry to any part of the United States.

JACKASSES.

For sale, by the subscriber, three very superior Maltese Jacks, lately imported direct from Malta, in the brig Ivanhoe, at Boston. They are each four years old this summer, two of which are now fourteen hands high, or nearly that; the other one is a little over thirteen hands high; all in good health and fine condition. They have been tried to mares since their arrival, and perform very vigorously without any hesitation. Any inquiries, by mail, post paid, will have immediate attention.

SAMUEL JAQUES, Jr.

Charlestown, Mass. Sept. 8, 1829.

ALMANAC.

1829. October.	Sun. Rises.	Sun. Sets.	Length of days.	Moon Sets.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 10	6 22	5 38	11 16	3 43
Sunday,........ 11	6 23	5 37	11 14	4 56
Monday,....... 12	6 25	5 35	11 10	rises
Tuesday,...... 13	6 26	5 34	11 8	6 39
Wednesday,.. 14	6 27	5 33	11 6	7 24
Thursday,..... 15	6 29	5 31	11 2	8 12
Friday,......... 16	6 30	5 30	11 0	9 3

Full Moon, 12th, 10 h. 22 m. Mor.

BALTIMORE PRICES CURRENT.

Tobacco.--Maryland, ground leaf, $6.00 *a* 13.00—seconds, ordinary, 4.00 *a* 6.00—red, 4.00 *a* 6.00—fine red, 6.00 *a* 13.00, forwrapping 7.00 *a* 12.00—Ohio, common, —— *a* —.—good red —— *a* ——.—fine yellow 25.00 *a* 30.00.—Rappahannock, 3.50 *a* 4.00—Kentucky, fine 4.50 *a* 7.00—wrapping, 4.50 *a* 7.00.

Flour—best white wheat family, $6.75 *a* 7.25—super. Howard st. 5.62½ *a* 5.75; city mills, 5.50 *a* 5.75 Susquehanna, —. Corn Meal, bbl. 2.37½—Grain, best red wheat, 1.15 *a* ——;—best white do. 1.20 *a* 1.26; ordinary to good, 1.03 *a* 1.10—Corn, white, .50 *a* .51; yel. .50 *a* .51—Rye, — *a* .52—Oats, .30 *a* .32—Beans, 1.10 *a* 1.15—Peas, .60 *a* .65—Clover seed, 3.25 *a* 3.50—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—Barley, .45 *a* .50—Flaxseed, .75—Cotton, Virg. .9½ *a* .10—Lou. .11 *a* .12—Alab. .9 *a* .10—Mississippi .10 *a* .12—North Carolina, .8 *a* .9—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .22½ *a* 23—in bbls. .24 *a* 25½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22--three-quarter, .25 *a* .30--full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* —; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, —— *a* 5.50—Herrings, No. 1, bbl. 3.75 *a* 4.00; No. 2, 3.50 *a* 3.75—Mackerel, No. 1, 5.37½ *a* 5.50; No. 2, 4.75; No. 3, 3.75—Bacon, hams, Balt. cured, .9 *a* .10; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .30 *a* .31—Plaster Paris, cargo price per ton, $4.00, ground, 1.25 bbl.—Prime Beef on the hoof, $4.50 *a* $5.00. Pine Wood, by the vessel load, from 2.25 to 2.37; by the single cord, 2.50—Oak Wood, by the vessel load, 3.37½ to to 3.50; by the single cord, 3.50 to 3.62½.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

A NEW TREATISE UPON WOOL AND SHEEP.

Translated from the French by the Editor of the American Farmer.

(Continued from page 226.)

Section 3.

Of the Shearing.

It is not our intention to enter into all the details respecting the shearing operation, so many treatises having already been published on that subject By this time, each proprietor of flocks has, upon indications gathered from these works, adopted a method of his own. We shall therefore confine our remarks to some of the most interesting points of consideration.

We have no hesitatinn to advise that lambs be sheared the very first year of their birth. And our principal reason is, that the young animal prospers more when sheared, than if it had retained its fleece. This we have ascertained, as will be shown in the account we shall give in the second part of this work of the result of our practice. Besides this, early shearing is favourable to the destroying of the vermin which can with difficulty be got rid of in fleeces of eighteen months. According to the seasons at which they were yeaned the oldest lambs may be shorn in the spring, and the others in Juiy or August; but at this latter period all the fleeces must be taken off, even those the wool of which is too short to be used.

If the health and prosperous state of the lambs require that they be shorn in the first year, it is likewise the interest of the proprietor to have it done, in consequence of the value of the wool.

Let us suppose in fact that the eighteen month wool weighs the same as the united first year and adult wools,* this conformity of weight would not indicate an identity of value; for, on one hand, the lamb wool is a very precious material for certain stuffs, and its relative price, and its losing less by washing, average for it commonly, at equal weight, a higher price than that of the adult wool. This we shall clearly show in our next chapter. On the other hand, the eighteen month wool will always be inferior in quality to that of all the succeeding fleeces on the same animal; because its fibre will naturally be more unequal and less elastic, and that exposed for a longer time to the influence of external causes, it will have been more or less injured by them. If, however, it were desired to use an eighteen month wool for combing, we might, in consequence of its length, compromise the evident diminution in quality which it has experienced if destined to be carded.

Proprietors are in the habit of avoiding with care, that their flocks be exposed to rain, before the shearing time, because they know that a heavy rain can wash away as much as one pound from each of the fleeces, and weight for them is a great object. We do not mean to advise them to give [illegible] these precautions; but it is not in consequence of this affair of weight; for we shall show directly that the cleaner the fleece, the better *bona fide* price shall it command; hence an advantage to the grower; but the rain renders the shearing operation much more difficult if the wool be moist, and this moisture, when the fleeces are folded and piled up, may cause them to decay very rapidly.

The method practised in Spain of sweating the sheep by huddling them up [illegible] contracted space before shearing them, has not for object, as is generally believed, to increase the weight of the fleece. The advantage which is derived from it is, that it facilitates the shearing operation by exciting a flow of the grease in the fleeces, which having been the whole year exposed to the rains and dust, are generally more wanting of it than in flocks that are sheltered.

It is, in truth, certain that the presence of a sufficient quantity of grease considerably assists the shearing operation; but the Spanish custom is not the less faulty, inasmuch as it greatly exposes the health of the animals, hence it will always be rejected in France, where, in fact, it would not offer the same reason for following it.

It is not a matter of indifference that all the fibres of the wool be cut at the same height, because the uniformity in the growth will in consequence the sooner restore itself in the second growth, and the locks will be more equal and flatter on the surface of the fleece; these are two important considerations.

In Germany, a practice formerly prevailed as regarded fine flocks which is now less attended to; it was to shear twice a year. It originated in the habit of shearing twice a year the indigenous breeds, and was maintained after the crossing. It will be easily conceived that a custom thus introduced, might on occasions and in certain climates if attempted suddenly, prove very fatal in its consequences.

As respects those fleeces the fibres of which are unequally fine in their whole length, that is, the extremities of which are sensibly not so fine as at the roots, there will be a decided advantage in shearing every six months, because, notwithstanding that the fibre would have, in this part, somewhat less fineness than in its maturity, it would, however, be more uniform, and consequently softer, and the wool would correspondingly command a better price, since a want of uniformity does away all other good qualities. A very long merino wool, which would nevertheless be intended for carding, would also gain in this respect, by being cut twice a year. But it would be greatly improper to shear twice animals, the wool of which is very equal, because thus, without any sort of compensation, a part of the fineness and particularly of the elasticity would be sacrificed.

We shall not further expatiate upon this practice, because we do not think that it can be adopted for superfine flocks, for reasons which we have just stated, nor even in other flocks, by reason of its dangerous consequences, notwithstanding the contrary opinion which some persons have lately attempted to justify. We are however compelled to make some observations, the pertinency of which will be appreciated by our readers.

The false system adopted in the education of merinoes which we exposed in the *introduction* to this work, the disastrous effects of which have thrown discouragement among the proprietors of flocks, has still some defenders, who, compelled to submit to the evidences, would misrepresent the considerations they give rise to, or who seek in illusory means, a remedy that can only be found in the result of a better concerted and better directed system.

If, therefore, they no longer obstinately deny that there are finer wools than those of certain flocks, which were customarily looked upon as the types of beautiful merinoes, they ascribe this superiority of fineness to the sickly state of the animal, and maintain that these wools have lost a part of their qualities for the manufacturer; if, however, notwithstanding this decree, they still are bought up at high prices, by the manufacturers, then they assert that it is all a *caprice*, which can be satisfied by shearing twice a year.

It is evident that these strange notions would no longer be entertained, if the study of wools were pursued without prejudices; for we would soon become convinced, that if the manufacturer prefers certain sorts of wool, it is because they really deserve the preference, from their good qualities, and that the more or less length of the fibre is a matter here of very little importance. Another error is to suppose that superfine wools are actually much shorter than the others. We have compared samples of a great number of merino flocks, with the fibres of superfine wools, proceeding from locks the *apparent* length of which varied from 1½ inches to 2¼ inches, and these fibres being extended, were found to be equal or longer in reality than the greater number of the fibres of these other wools.

We do not hesitate, therefore, to affirm that the second shearing, whatever advantage it may possess in certain cases, will always be inadequate to remedy the true evil; for it never can, of a middling or indifferent wool, make a superfine wool possessing all the qualities necessary for manufacturing.

Chapter 4.

Of the Fine and Superfine Wools as they appear after shearing.

We have now arrived at that part of our subject when we can pertinently give to the wool-grower the best directions for obtaining the fullest returns from his wools. It will give us pleasure to know that the preceding chapters have been useful to him, by enabling him to make a proper study of the qualities of wool. A knowledge of these qualities will necessarily have led him to an acquaintance with the cares required by his flock, as the means of compensating his attention and trouble.

This truth is manifest, namely, *that the growers will never be able to obtain a true value for their wools, so long as they continue to sell it in its greasy state*, particularly if they do not make some selection, or assortment of the fleeces. No doubt of this will be entertained if it be remembered that the buyer must, in order to get an idea of the price of wool, first correctly ascertain what its real value is; that, notwithstanding the more or less of cleanliness in the fleece, its average good qualities, and the nature of these qualities, are capable of producing a difference in this intrinsic value, which, as we shall see hereafter, may amount to as much as eighty per cent. That is to say, that twenty kilogrammes (40 lbs.) of wool in the fleece and in the greasy state, may sometimes be worth as much as one hundred kilogrammes (208 lbs.) of inferior quality.

Why then should not a purchaser, who besides has all the risk of the market to run, put himself on the safe side, by combining these results in his offers. But it follows that the grower is deprived of a part of his profits, for it is not presumable that he can gain any thing by not knowing certainly, any more than the buyer, the intrinsic value of his merchandise.

In the above remark we have alluded only to honourable purchasers, without referring to disloyal barterers who impose upon the growers by unfaithful accounts of the nature of their wools.

Besides this notorious inconvenience in the sale of the wool in its greasy state, there is another of equally injurious consequence, that is of taking away the greatest part of the interest which a proprietor ought to feel for his flock, if he wishes it to prosper. He no longer considers any thing more than the gross weight of the whole of his fleece, compared to the proffered price; hence his endeavours are solely to obtain this weight, or to increase it, and this is done at the expense of the quality of the wool, by forcing the feeding, choosing the largest rams, and even neglecting the cleanliness of the fleece, thus endeavouring to elude the attention of the buyer by means often unsuccessful, and eventually always unprofitable. He is ignorant of the produce of each animal, he does not know that one may pay him twice over the expenses of feeding him, whilst another only returns the three-fourths—so follows the entire neglect of the true means of improvement.

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* Notwithstanding the experiments that have been made to establish this fact, the appearance of a superiority in weight of grease which has sometimes resulted from it, it would be easy to show that there is a real loss in net weight [illegible] wools of eighteen months growth.

But how shall we remedy this evil? We shall endeavour to indicate the different evils in the several sections of this chapter, by laying before our readers the result of our researches and of our experiments, on the best way of preparing the wool for sale; still, we must repeat it, it is first necessary to acquire a knowledge of the raw material, otherwise serious errors may be made; and then indeed it is as well to remain in the old, as to commence a new course of errors.

This chapter will be divided into four sections.

In the first, we shall speak of the classification of the fleeces, and the *triage* or picking in the greasy state.

In the second, we shall treat of the different methods for cleaning and washing the wool, and we shall indicate that which has appeared to us better to conciliate the interest of both the grower and manufacturer.

In the third, we shall lay down the value of the different wools.

Finally, in the fourth section we shall endeavour to account for some of the regulations of commerce regarding this raw material.

(To be continued.)

(From the British Farmer's Magazine.)

ON THE DISEASES OF GRAIN.

OF THE RUST.—The *rust* is a yellow powder, of the colour of iron-rust, which is seen on the stalks or leaves of a great number of vegetables, and particularly, from the month of April, on those of wheat. This dust forms upon them lineal and parallel spots; it is also combined in little tubercles, formed by the dilated epidermis—and when they burst, it spreads outside. It readily sticks to the fingers, and has no perceptible taste or smell. When seen through the microscope, it appears to be composed of spherical or oval globules, larger in general than those of smut

For a long time naturalists did not agree in opinion as to the cause of the rust. Messrs. Tessier and Tillet attributed it to the influence of fogs. The former thought it was caused by the total suppression of transpiration from the corn, in consequence of its being enveloped by this humid atmosphere; the latter supposed that it was occasioned by the acrid particles of the fog acting upon the leaves and stalks, and thus, by rupturing their delicate texture, causing the extravasation of a juice, which, on becoming dry, was converted into a sort of dust. Other observers thought that the rust was produced by the superabundance of the nourishing juice, resulting from a vigorous vegetation. M. Rozier imagined that dung manure contributed to the rust, but that dew was the principal cause of it. All these hypotheses, however, are erroneous; and it is now clearly proved that this disease of corn is produced by real intestinal plants, is similar to those of the smut, and of the genera *Uredo* and *Pucinia.*

The seeds of these parasitical vegetables shoot out, like those of the smut, in water, where they may easily be perceived. If adhering to grains of corn at the time of their germination, or even to the young and tender plants, they produce filaments which insinuate themselves through the epidermis, where they fructify, and force it, by their accumulation, to burst, in order to open a passage for them. Sometimes both the genera above mentioned are united in the same tubercle; at others, it is filled only with one or the other: it is often in the black tubercles, which answer to those on the opposite surface of the leaf, that we find the *pucinia.* The *uredo* forms the yellow dust.

I have observed that the rust is found in a great number of plants; I shall add that, like them, it appears to vary. The rust which attacks one plant is seldom of the same species as that which attacks another. The *dog's-grass* and the *rye-grass* are the plants on which, next to wheat, the rust is most frequently found; but as the history of *uredos* is the same as that of the *uredo* of wheat, it is unnecessary to detail it.

The rust of the leaves of corn (which is the *linear uredo* and *pucinia of grasses* of Decandole) generally appears little by little. The lower leaves of the same plant are often loaded with it, while it has not made its appearance on the upper leaves. Sometimes, also, many feet in extent of corn have it, while in the same field, and close by them, as many other feet are not at all infected by it.

As the nature of the rust is now well known, it will be clearly seen that fogs cannot be the cause of this disease; they may facilitate its propagation; and experiments, on the contrary, seem to prove that this propagation is in an inverse ratio to their duration. Nevertheless, as the presence or absence of the rust doubtless depends on many other causes, this fact requires farther observations before it can be confirmed.

I shall not say more on a disease, the effects of which are not so fatal as those produced by the smut and the *charbon*, or mildew. The means employed for preserving corn from these fatal diseases secure them against the rust, by destroying its germs.

OF THE CHARBON, OR MILDEW.—Notwithstanding some authors have made a distinction between the *nielle*, or mildew, and the *charbon*, they ought to be considered as one and the same disease; and which, next to the smut, is the most terrible malady known in wheat, barley and oats. The panicles of the last-mentioned plant, when it is attacked by it, on coming out, are as black as if they had been burnt; and all the parts of the seed, of which there often remains nothing but unformed rottenness, are covered with a blackish dust, not very adhesive, inodorant when fresh, but exhaling a disagreeable and putrid smell on being wetted.

This is not the pl[illegible] hypotheses that have been formed relative to the disease in question, and all the errors to which they have given rise. I shall merely touch upon the first opinion of M. Bulliard, which has been the most generally adopted. He thought, and with reason, that the *charbon* was not a disease, but rather a series of degenerations of different organized and growing plants. He saw in them nothing but a heap of small seeds of a mushroom, of the *reticularia* genus—a genus most of whose species attach themselves to living vegetables, and cause them to die in a short time. These grains, which are extremely minute, are, in his opinion, carried by the wind upon the blossoms, and even conveyed within the pericarpium before it bursts; they insinuate themselves even into the seeds, where they take root and are nourished by their nutritive juices, and propagate vast quantities of other grains of a similar nature.

Some more fortunate observations have given us more certain ideas as to this destructive evil; but it must be owned, that if M. Bulliard is not precisely right, his opinion comes very near to the fact. But it is now known that the *charbon* is produced, like the other diseases already mentioned, by intestinal plants in the corn—that is, *by the black-dust uredos, which present phenomena similar to those of the smut, and of the uredos with yellow, orange coloured, or brown dust.* Their dust is, in fact, nothing more than *gemmes*, or particles, most of them much more diminutive than those of the smut or rust. They also grow in water, and produce naked and simple stalks, which are sometimes, but very seldom, double or treble. Those that float on the surface of the water often put forth *aigrettes*, or a collective series of globules; but the whole of these are much smaller than those in the smut or the rust, and are consequently much more difficult to be seen.

We discover the *charbon* of wheat in the stalks when the plants are much younger, and farther from ripening, than when we find the smut in them. In general, feeble plants are more attacked by it than those that are vigorous.

The preservatives made use of against the *charbon* are the same as those that I have sufficiently described for destroying the smut. Agriculturists cannot be too earnestly entreated to pay the greatest attention to their choice of seed corn, and particularly to prepare it well before sowing, either with lime or the sulphate of copper. Their own interest, so deeply united as it is with that of the people, ought to induce them to employ the latter preservative, which would be highly to their advantage.

(To be continued.)

(From the Charleston Mercury.)

ON OVERSEERS.

To the Members of the Agricultural Society of South Carolina.

GENTLEMEN,—I think with the several writers on the subject, that great benefit would be derived from getting respectable young men to become overseers. But while I agree in this one point, I differ from some of them in several others, and particularly with regard to their education.

The plan proposed by one of them, "A Well Wisher," is truly patriotic, but it is too philosophical for our country, and far too much so for the purpose required. For however useful it might be for a planter and proprietor sometimes to understand Mathematics, Mechanical Philosophy, or Agricultural Chymistry, these are not essential to the business of overseeing; and if they were, the acquirement of them is beyond the reach of those who ought to look to this line of life for a support. Besides, nothing is more productive of indolent habits than attendance on mere lectures, where close application and study are not especially called for to accompany it. Nor could there be any thing more destructive to the morals of the young and simple countryman, than to send him into a corrupt town to learn his trade.

I am of opinion, gentlemen, there is a greater want of good, plain, honest, well-meaning men who have been educated in the usual plain way, and who, without giving, or too often taking, offence in the course of their engagement, will try to obey directions and take good care of the property committed to their charge, than of agriculturists educated by lectures, or in schools, colleges and *towns* professedly as such. Refinement of education is too often fatal, and to too many who are themselves proprietors of lands and negroes; it leads too much into theory, which would be ruinous to the class of people we're speaking of, as well as to their employers. I'm persuaded the education of apprentices to planting, or of those who are to become overseers, like that of young men intended for stores and counting houses, and placed there to learn trade and commerce, ought, in order to *make them useful*, to be of a very simple kind. Their real apprenticeship will chiefly consist in acquiring (if they have not already got them) suitable habits, and learning the common every-day business of a well regulated plantation. For instance, let them be accustomed to early rising, and to steady, settled customs and ways. Let them learn regularity in arranging plantation business *in advance*, in order to avoid delay, confusion and loss of work; regularity in setting every one to their work betimes; in closely watching the driver or drivers, urging them on to their duty, and t[illegible] vigilant eye over every individual labourer's progress, as the day advances, ascertaining that none [illegible]ese, and of course that none of the business of the place is getting behind hand. Thus learning the most useful of all lessons, to keep ahead of work, and not to let work get ahead of them.

An overseer has to see to the *preservation* of the crop as much as to the planting of it, a lesson not to be learnt in a Carolina school, or by a mere lecture on the subject; to see to the care of the property generally, of fences, drains, gates, buildings, horses, cattle—the care of the negroes themselves; the mode of treating them and managing them, a most important point, which nothing but experience and instruction from persons of experience, can teach; of guarding against their impositions, tricks, and stealing; in short, the practical part of the education of a southern planter; and which not only every overseer, but every gentleman who owns property in the south, ought to know, and to know *well.* An overseer must learn planting by attending to the practical part first; without a knowledge of which the theoretical could not be understood, and would therefore be useless. A young agricultural chymist would be analyzing the soil, and dabbling in tests and washings and crucibles, while he ought to be ploughing and planting, or hoeing, or harvesting; he would be speculating in new manures, while his employer's cattle were wandering wild in the woods, thus wasting better manure, than Sir Humphrey Davy could have pointed out, in all the annals of his art. I am, &c. A City Rustic.

(From the Albany Argus, September 12.)

Productiveness of the White Flint Wheat.

Mr. Daniel French, of the town of Milford, has left with us a sample of wheat, raised upon his farm the last season. It is the first crop of the kind, raised in this county, and besides the excellence of its quality, the quantity of its yield per acre more than common grain, must recommend it to the notice of the farmer. On old ground which had yielded him about forty successive crops, Mr. French informs us he has just harvested 34 bushels to the acre.

HORTICULTURE.

A Visit to Parmentier's Nursery and Garden.

J. S. Skinner, Esq. *New York, Oct.* 4, 1829.

Having passed a couple of afternoons at Mr. Parmentier's establishment, I beg leave to express through the Farmer my opinion of it.

I was much surprised, both by the immense improvements effected in four or five years, from one of the most stubborn, rocky pieces of ground to a finely cultivated garden and nursery of twenty acres, and by the great variety of trees and shrubbery, native and exotic, common and curious, from the most simple to the most splendid. I have been conversant with trees and shrubbery for many years and yet I saw hundreds of kinds with which I was unacquainted; and those, too, of the most curious and beautiful species. I dare not attempt to particularize, and were I to do so, no description I could give would be sufficient. I can only say generally, that there is scarcely any tree or shrub that cannot be found there. Mr. Parmentier is also very ingenious, and loves to play with nature, in making her produce new varieties. Hence we see little apple trees, *not two feet high*, loaded with large apples. This he effects by grafting apple slips on stocks of a dwarfish nature. He has great many varieties of apples growing in this way and some we had on the table after dinner were of excellent flavour. His flower plants and shrubs are of great variety, and exquisitely beautiful. The roses now in bloom, the splendid dahlias, the lovely pinks, the beautiful johnny-jump-ups, the thousand flowers and flowrettes, indeed, that attract the eye along the borders of every avenue, would make us forget that it was October, and think of flowery May, were it not that the bleak autumn winds compel us to button close our garments.

His vineyard is extensive, and contains every variety that can be wished. The vintage is now over of course, but a few of the golden chasselas with which I was presented, were delicious. This department of the establishment merits equally the confidence and patronage of the public. An anecdote I heard related of the proprietor will illustrate this. A nurseryman in France had been highly recommended to him as meriting confidence. He ordered a quantity of vines of a particular kind; and a gentleman at a distance wanting some of the same kind he supplied him with the imported ones. He was soon convinced, however, that they were not of the kind expected, and ordered a fresh supply from his old correspondent, who had never deceived him, and immediately sent to the gentleman a full supply of the genuine ones, without charge, and without the discovery having been made by his customer. On the receipt of the last supply the gentleman was much surprised, and wrote Mr. Parmentier that his first vines were quite satisfactory, and bore good fruit; but he was unacquainted with the peculiarities of the vine, and Mr. Parmentier knew they were not the kind he had ordered, therefore, he insisted upon his receiving the right ones. Such an act is sufficient to establish his character for correct and honorable dealing. This, however, is not all, nor a tithe of the evidence I obtained to authorise implicit confidence in Mr. Parmentier as a nurseryman. The vexation and loss experienced, after waiting five or ten years, and bestowing great care and attention, on finding fruit trees to be of inferior or worthless kinds, can only be appreciated by those who have suffered thus; and I am sorry to say there are too many who have thus become, to their sorrow, good judges. But I have never heard of any one suffering in this respect from Mr. Parmentier, and I have no hesitation in saying that I never expect to.

Visiters to the nursery receive every attention and explanation that can be desired from Mr. Parmentier and his interesting family. It is with difficulty the old gentleman can express himself clearly in English; but he has an interesting and highly intelligent daughter, who takes great delight in accompanying the visiter through the grounds, and drawing his attention to every thing curious and beautiful, explaining their properties and habits, and pointing out their beauties. This makes the visit extremely interesting. She will give you the botanical name of a plant or flower shrub, and the French and English of its common appellation, and describe its qualities and habits with so much ease and pleasantness, that the visiter is only embarrassed by the choice, which of the two flowers, the human or the vegetable, most to admire; and he must be a stoic indeed who will soon forget the interesting, the sprightly *Adele Parmentier.* A Baltimorean.

THE PETRE PEAR.

Bartram's Botanic Garden, *near Phila. Oct.* 9, 1829.

J. S. Skinner, Esq.

Sir,—By this day's steamboat I have sent you a small box of pears, from a tree now growing in this garden, and which originated from seed planted here by the elder John Bartram, in the year 1735. In the report of the transactions of our Horticultural Society, for last month, the fruit is described as "large, fair, melting, and of a delicious flavour."* If this sample does not reach you in good condition, be pleased to inform me, and I will forward some by another conveyance, in order that you may judge whether the fruit is deserving of the above character. Mr. Bartram named it the *Petré* pear, as he received the seed from Lord Petre, of London. The tree is of middle size, and is an abundant and constant bearer, not having failed once, in the last twenty years, to yield crops of from two to ten bushels of perfect fruit; although, from standing near the house, and in the middle of a gravel walk, it has not been manured or assisted with fresh earth for many years, it is still in good health and thriving condition. This tree has been in full bearing upwards of seventy years, and has probably produced more than 400 bushels of fruit, which has seldom been sold for less than two dollars, and more frequently for four dollars, a bushel.

I have also a number of fine bearing trees, grown from the seed of the preceding, all differing in quality, as some are early and others late, and of various sizes and flavour, but all of them producing fine fruit, far superior to the trash which we obtain from one half of our European varieties.

With your permission, I will write to you again, on this and other subjects, connected with horticulture. Respectfully, I am, your obd't servant,

Robert Carr.

[* A true description.—*Ed. Am. Far.*]

RURAL ECONOMY.

(From the New England Farmer.)

THE DAIRY.

Mr. Fessenden.—I was much pleased, in your paper of 25th September, [see Am. Farmer, of Oct. 2.] to read a piece on the Dairy by an experienced farmer, signed S. X. It is a valuable paper in many respects; and as to his trial of the different qualities of milk of different cows by the *lactometer,* I can most fully confirm by my own experience, and will give the result of a trial made at a farm of mine in New Hampshire, the 24th of August last, on nine cows of different breeds—viz.—

No. 1,	a cow, *half Alderney,* of cream	12-10	inches.
2,	a heifer, same breed,	12-10	"
3,	a cow, do.	8-10	"
4,	a heifer, *quarter Alderney,*	8-10	"
5,	a cow, (*half Cœlebs,* or short horn;)	8-10	"
6,	do. (*half Admiral,* or do.)	8-10	"
7,	a native cow, 10 years old,	9-10	"
8,	do. do. 4 years old,	3-10	"
9,	do. do. large Sandwich breed,	2-10	"

The above shews as great a difference in quality, as the account given by S. X.; and is greatly beyond the ideas of our farmers generally on this subject; I have conversed with a great number, and in no one instance have they thought the difference could be more than one-third, but above it is as six to one. This shows the *butter* properties of the milk;—probably in *cheese* the difference would not prove so great in *quantity,* but then I presume the *quality* must be *much richer.* I should think it would be advisable in every town or neighborhood to own a *lactometer,* (they have been made at the Glass factory at Lechmere point, and I should think would not cost more than three dollars for a frame with 4 or 6 glass tubes)—by this means they could readily determine, as their heifers come in, which were valuable to keep—I have generally found that those cows which gave the *greatest quantity* of milk, gave the *poorest quality.* It is not, however, always the case.—I have also thought heifers did not give so rich milk as when they come to 4 or 5 years of age—the quality of milk is always less rich soon after calving, and becomes richer, constantly, till the cow is nearly dry—and in the fall, milk is always richer than in the spring—all these circumstances must be taken into consideration in determining the value of a cow by the lactometer. An ordinary cow, as to richness of milk, may be a good breeder for *draft* and *fatting* stock, but in *our* country I think the butter and cheese properties are of first consideration, and as fine animals for labor and beef may be obtained from them.

In using the lactometer, the *whole* milk should be drawn from the cow, and then stirred, before filling the glass—otherwise you do not get the fair average quality—in *warm* weather, the cream rises slowly—I generally let it stand 48 hours, and note its rising every 12 hours—and in *cool* or *cold* weather I have not known it to rise any after 12 hours.

S. X. notices several cows that have proved *great butter* makers—these have all been very high fed animals.—I somewhat doubt, if a farmer gives his cows good English hay, and enough of it—and also has *real good* pasturage, whether he gets by extra feed of meal, skim-milk, &c. &c. sufficient extra butter or cheese to pay for it.—I think S. X. proves this in Essex county.

I wish some of our public spirited individuals would import a few bulls and heifers of the *Ayrshire* stock that give 900 gallons of milk per year, and also of the *Galloways*, the cows of which produce *their weight in cheese* per year.—They would be great acquisitions to us, notwithstanding the fine stock we already possess, in Short Horns, Alderneys, Herefords, and Devons—and might be easily imported from Glasgow, *via* New York or New Brunswick, as from Boston there is little or no trade with Scotland,—and the expense would not be much. P.

Sept. 29, 1829.

INTERNAL IMPROVEMENT.

BALTIMORE AND OHIO RAIL ROAD.

Third Annual Report of the President and Directors, to the Stockholders of the Baltimore and Ohio Rail Road Company.

The time has arrived when it becomes the duty of the President and Directors to submit their third annual report to the Stockholders of the Baltimore and Ohio Rail-road Company, in order to acquaint them with the progress made in the undertaking during the past year, its present condition, and its future prospects.

The first annual report of the Board of Directors was made whilst the enterprise was in embryo, the route of the road not having then been determined on, nor its practicability fully ascertained. At the time of the second report, the Board were actively engaged in prosecuting surveys, and in perfecting the necessary arrangements for the construction of the road, but surrounded by those numerous obstacles which must unavoidably attend the first beginnings of every great enterprise, when there is a deficiency of the necessary practical knowledge and experience.—The report now about to be submitted, finds the Board of Directors in possession of much valuable information in reference to the work in which they are engaged, and from the experience acquired, and the progress already made towards its accomplishment, they have the fullest confidence in their ability to carry it to a successful completion within the time contemplated by the charter.

The first division of the road, extending from Baltimore to Ellicotts' mills, a distance of about thirteen miles, had, with the exception of that part of the line within the city, generally been put under contract at the time of the last annual report, and nearly all the second division extending to the Forks of Patapsco, was soon after also put under contract: not much progress was however made in the excavation and embankment until about the month of November, and on account of the difficulty of procuring masons, but little was done towards the bridges and culverts before the month of April last; yet notwithstanding the unfavourable state of the weather throughout the greater part of the winter, and the unusual quantities of rain during the late spring and summer, the work has progressed with a rapidity, which it is believed has rarely been equalled in any public undertaking in this country; the graduation and masonry upon the whole line, extending twenty-five miles, being now, with the exception of some of the more difficult parts, in a state of readiness to receive the rails, and there is no doubt but that by the time the two bridges across the Patapsco and Gwynn's falls shall have been finished, the entire line can be made ready for laying down the rails.

The cost of this portion of the road has exceeded the original estimate; this increase of expenditure upon that part of the work arises: 1st, from the difficulty and cost of procuring stone suitable for the bridges and culverts on the first fifteen sections, having been found to be vastly greater than was anticipated. 2dly, from the great advance which took place in the price of labour, subsequent to the time when these estimates were made. 3dly, from the occurrence of extensive beds of rock and tenacious hard clays, in many places along the line of the road, where the surface of the ground afforded no indication of their existence. And lastly, from the Board of Directors having concluded to substitute permanent stone bridges over the streams, and embankments of earth across the extensive valleys, which intersect this division of the road, in the place of wooden viaducts as was originally contemplated. Although this alteration has very greatly augmented the cost of that portion of the road, the Board are satisfied that the change was proper, and that it will be approved by the Stockholders, particularly as it is known that the same circumstances will not recur on the entire line of the road between Baltimore and the Ohio river; and the Board have every reason to feel assured, that notwithstanding the very formidable difficulties presented on the first divisions of the road, and the consequent heavy expenditure upon this section of the work, the road can be completed upon the plan proposed, throughout the whole line from the city of Baltimore to the Ohio river, at an expense not exceeding the original estimate of twenty thousand dollars per mile.

The numerous unavoidable obstacles upon the first ten miles of the road, were still further greatly augmented by the necessity of sustaining a level, sufficiently high, upon the entrance of the road into the valley of the Patapsco, to overcome the rapid rise of the country along that stream, for the first twelve miles, in its passage across the granite range between the tide-water and the mill-dam of the Union Manufacturing Company, without the additional aid of local or stationary power, as well as from the necessity of also continuing that elevation, from the valley of the Patapsco to the city of Baltimore, in order to pass the several ridges intermediate to that stream and the valley of Gwynn's falls, and to secure the entrance of the road into the city at a height sufficiently elevated to accommodate its trade. These difficulties have, however, been overcome; and although the expenditure has of necessity been heavy, yet a route for the road has been secured, extending from Baltimore to the Potomac river, a distance of sixty miles, which, with the exception of a slight elevation between the Monocacy and Potomac, has only a single summit, and across this summit a track has been gained of so easy access as to occasion no very great obstacle or increase of expense to the transportation.* By pursuing the valley of the Potomac from the "Point of Rocks," the road may be continued, if desired, without one additional summit to the coal mines in Allegany county, and would then exhibit a Railroad extending about one hundred and eighty miles, with but one summit requiring stationary power; a result which it is believed has not been paralleled in any work of the kind, either in this country or in Europe; or if it should be deemed preferable, with the view of shortening the distance, the road in several places may be conducted from the immediate border of the river, over slight elevations, so inconsiderable, as probably not only to lessen both the expense of its construction, but also the cost of transportation.

The work, as far as it has been completed, is executed in the most substantial and permanent manner. The bridges are all built of stone; that over Gwynn's falls, is a single arch of eighty feet span, with an elevation of 58 feet to the top of the parapet, and 300 feet in length. The bridge across the Patapsco has two arches of 55 feet span each, and two arches of twenty feet span each; it rises 46 feet high, and is 375 feet long. There are numerous other bridges, of various dimensions, from 25 feet chord down to 10 feet, all of which are nearly finished, in the same substantial and permanent manner.

In passing from the valley of Gwynn's falls to the Patapsco, the excavations and embankments have unavoidably been very great; the deepest cut will be 79 feet, and the highest embankment is 57 feet, the quantity of excavation between the city of Baltimore and the valley of the Patapsco in a distance of seven miles is 655,568 cubic yards. The embankments along the same distance are 628,629 cubic yards, making together 1,284,197 cubic yards. The masonry on the section within the city, and on the first and second divisions of the road, is upwards of 56,000 perches of stone work, and is executed in a very superior style of workmanship.

Along the valley of the Patapsco it has, in many places, been found necessary to conduct the road through extensive beds of hard granite or limestone, and at the "Buzzard Rock" the road has been carried through a solid mass of rock rising 58 feet above its surface. These formidable difficulties have, however, in the short space of about one year, been overcome, and twenty-five miles of the road are now nearly ready for the reception of the rails. The expense of constructing the remaining forty-one miles thence to the "Point of Rocks," it is confidently believed, will be very considerably less than for the twenty-five miles from Baltimore to the forks of Patapsco.—When the road shall, therefore, have been completed to that place, it may safely be computed, whether we regard time or expense, that the work will have been much more than half accomplished, as far as to the valley of the Potomac, and the Board are fully persuaded, that the entire graduation and masonry, may be completed as far as to

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* By reference to the maps and profiles which accompany this report, the advantages of the route selected and its decided preference over all others that have been examined, will at once become manifest. The equated distance from Baltimore to Williamsport along the route adopted, is 129.97 miles, whilst the distance in equated miles by the most favourable route north of it, is 162.90 miles. It should be observed, that no route was discovered north of the Point of Rocks with less than four summits, whilst the route selected, has necessarily but one summit requiring stationary or local power.

The comparative heights and distances of all the routes examined, will be still further illustrated, upon reference to the following tabular exhibit, shewing the result of the several surveys as actually made and reported upon, in the first annual report of the Board of Engineers, viz:

	Aggregate height summits in ft.	Distance in miles.	Equated distance in miles.
Route No. 1. By Jones' Falls and Harman's Gap, to Williamsport.	2375	95,43	162,00
No. 2. By Gwynn's Falls, Sam's Creek, and Harman's Gap.	18	91,23	165,00
No. 3. By Elk Ridge, Bush Creek, and the valley of Potomac.	16	100,50	150,76
No. 4. Route adopted. By the valley of Patapsco, Bush Creek, & Point of Rocks.	886	104,00	129,77

the "Point of Rocks" by the end of the year 1830. From that time fifty miles of it may be constructed annually.

The location of the entire line from the forks of the Patapsco to the "Point of Rocks" has been completed, except a distance of about twelve miles, and the whole line will be finished before winter, and be ready to be put under contract.—The road when constructed to the Potomac, will, at once, open to the city of Baltimore the trade of the fertile and extensive valleys of that noble river and its widely extended tributaries, and from that time cannot fail to become profitable, both to the stockholders and to the public.

The further progress of the work west of the "Point of Rocks" must, of necessity, be suspended till the termination of the suits now pending between this Company and the Chesapeake and Ohio Canal Company: measures had been taken in the early part of the last season to extend the road from the "Point of Rocks" westward, as far as to the west side of the Catoctin mountain, and eastward, as far as to the Chapel ridge, in order that this difficult portion of the route along the border of the river, might be finished as early as possible, and that the Company might thus be enabled to complete the line as far as to the mouth of the Shenandoah, by the time the road would reach the Potomac river. After the commencement of the construction of the road, it therefore became the policy of the Board of Directors, to employ all their disposable force in advance, upon those points which presented the greatest difficulties, and the execution of which would be delayed much longer, than the intermediate parts of the road, were both to be commenced simultaneously; the object of this policy, was to secure the uninterrupted progression of the road, from the time when the first rails were laid in the vicinity of Baltimore, which could only be effected, by previously reducing the difficult points to an equality, with regard to the labour to be bestowed on them, with the rest of the road. These points after passing Ellicotts' mills, westward, were principally, if not entirely, the rocky passes of the Potomac river; wherever, therefore, the narrowness of these left but little choice of a location, the road was laid down by metes and bounds, legal titles were obtained, and every thing prepared for the system of measures above described, in the months of May and June, 1828. Occurrences however took place, which have hitherto prevented, and still continue to prevent, the plans of the Board in this respect, from fulfilment. Certain subscribers to the Stock of the Chesapeake and Ohio Canal Company, a body not then organized, and some of the members of the Potomac Company, conceiving themselves interested in the proceedings of the Board of Directors on the Bank of the Potomac, obtained an injunction from the County Court of Washington county, restraining the further proceedings of the Board, in obtaining titles to lands over which the Rail-road had been definitively located. This was followed by an injunction, obtained by the Rail-road company, from the High Court of Chancery, restraining the Chesapeake and Ohio Canal Company, from taking any steps in the construction or locating the Canal, which might render unavailing a decision in favour of the road on the first injunction. As the owners in fee, however, of the pass of the Potomac through the Catoctin mountain at the "Point of Rocks," the Board of Directors still continued to prosecute their work at that place, and in pursuance of the system adopted by them, had advertised for contracts and commenced the work there, when a second injunction was obtained, restraining the Directors from conducting the road *at all*, within the limits of Frederick county, although the greatest part of the road, within that county could never in any manner come into collision with the Canal. This last injunction however, so far as it related to land eastward of the "Point of Rocks," was subsequently withdrawn by the Canal company. During the pendency of the litigation consequent upon the above proceedings, the Directors have ever been anxious, to avoid any but the most conciliatory measures towards the Canal company.

The Board have not any knowledge, as has been elsewhere stated, of their having been invited by the Canal company, to an amicable adjustment of the disputes which have occurred. The only overture known to the Directors, was one made, as they have been informed, to the legal counsel of the Rail-road company, "to state such a case for adjudication as would bring the points in issue between the two companies to a speedy decision," and this would have been acceded to forthwith, could those facts have been admitted by either party, which the other deemed essential to the proper representation of its rights before a judicial tribunal, and "which would not involve a surrender of the rights and interests of the institution with which they were connected." This was soon found, by the counsel, to be impracticable, and nothing therefore remained, but "to wait the slow course of the law." The case came on for hearing before the Chancellor on a motion to dissolve at July term last, and was argued by the counsel on either side, upon all the points which could arise in the consideration of the question.—The injunction granted in July 1828, in favour of the Rail-road company has been sustained by the Chancellor, upon the grounds urged on behalf of this company, in the argument before him; and the Board of Directors feel satisfied upon the assurance of their counsel, that there is every reason to anticipate an equally favourable result upon the further investigation of the case at the final hearing in Chancery, and in the courts of ultimate resort, should the Canal company determine to proceed still further in litigation.

The Board of Engineers have commmenced laying the rails upon the division of the road within the city of Baltimore, and it is calculated that the entire line, from Baltimore to Ellicotts' mills may be finished during the ensuing spring.

The iron rail plates with their fixtures and a considerable portion of the other requisite materials, are already procured or have been contracted for, and will, it is expected, be received in due time.

The stockholders were apprised, at their last annual meeting, of the intention of the Directors to possess themselves of accurate information, respecting the most approved modes of constructing Rail-roads with their various appendages, and that to effectuate this purpose in the most satisfactory manner, the Board had concluded to send a deputation of their Engineers, personally to inspect the Rail-roads of Great Britain. The Directors were not less aware of the importance of the enterprise committed to their management, than of the value of previous experience in the prosecution of a work of so great magnitude. In order therefore to ensure to the company the practical benefits of whatever knowledge and experience works of this kind in Great Britain might afford, they embraced the earliest opportunity to combine with the science already at their disposal, an acquaintance with the manipulations of workmen, and the means generally resorted to, in the various details of construction in that country.

To the accomplishment of this end Jonathan Knight, Civil Engineer, and Captain Wm. Gibbs McNeil, of the U. S. Topographical Engineers, with Lieut. George W. Whistler, of the United States army, embarked for England in November last, on the mission to which they had been deputed; and prior to their return to this country, they minutely examined every Rail-road of note or consequence in the United Kingdom.

They marked the rude execution of the original conception, and traced its gradual improvement, until it reached its present perfection, and although they have not yet been able, from the urgent nature of their present duties, to prepare a full treatise on the subject committed to their investigation, they have unhesitatingly expressed their "entire conviction, of the *general efficacy of Rail-roads as a speedy, certain, and economical means of conveyance.*" Frequently in contact with the distinguished Civil Engineers of Great Britain, and uniformly treated by them with unreserved politeness, they had free access to all the information on the subject possessed in England, both with regard to the construction of Rail-roads, and the application of motive power upon them.

The information they derived has been actively and usefully employed in aid of our work, as far as it has proceeded, and the unremitted duties of the Board of Engineers, in furtherance of the construction of the road, have alone prevented the deputation from submitting, before this time, in minute detail, the results of their observations in Great Britain. During occasional intermissions of duty, however, their Report, with the drawings illustrative of it, has been advancing, and will, it is expected, be completed at an early period of the ensuing winter. Meantime, as has been remarked, the main object of the mission will have been attained, in bringing within reach of the Directors, and at their control, a knowledge of the means best recommended by previous experience in the execution of similar works.

The Board are highly gratified in being able to state to the Stockholders, that of the five instalments which have been called in, and become due, amounting to 12½ per centum upon the capital stock of the company, not a share remains unpaid, and that upon the two accruing instalments becoming due on the first days of December and January next, the sum of FIFTY-ONE THOUSAND TWO HUNDRED AND THIRTY DOLLARS, has already been received in anticipation. This manifestation of confidence and zeal, on the part of the Stockholders, is not less honorable to them, than encouraging to those to whom they have confided the execution of the noble work in which they have embarked; and affords the most substantial guarantee of its early and triumphant accomplishment.

So general has been the good will of the public towards this undertaking, that a right of way for the road has been voluntarily conceded for the whole distance as far as the work has advanced, except in a single instance, where it was obtained by process of condemnation. The same feeling, it is confidently hoped, will prevail along the line to the Potomac, and as stated in the last annual Report, measures were early taken to secure the right of way, above the intersection of the road with the Potomac, along every difficult pass throughout the line, as far as to Cumberland.

Signed by direction, and on behalf of the board.

PHILIP E. THOMAS, *President.*

Baltimore, October 12, 1829.

LADIES' DEPARTMENT.

GOOD OLD TIMES.

I do respect the times of old—the times of beans and pork,
When our old clever, honest Dads went whistling to their work;
When old cock'd hats and breeches were the fashion of the day,
And good thick bottomed shoes were worn, with buckles shining gay!
The times of old—the times of old—when our good mothers wore
Good homespun stuffs—and kept their muffs and tippets evermore!
When good stout waists were all the rage, and cheeks ne'er painted were,
And borrow'd curls ne'er decked the girls with beauty debonnaire!

The times of old—the good old times, when home-brew'd beer went round
The merry hearth, where boisterous mirth and apples did abound—
When giggling maids would hang their heads in bashful modesty,
And sprightly lads eye their Dads, and nudge them cosily!
The good old times, when our old Dads were fat and hearty too,
With hair comb'd back most gracefully, and done up in a queue—
I do respect those golden days, when fashion was inclin'd
To make her votaries wear their coats with pocket holes behind!
Alas! they've passed with time away—those halcyon days are o'er,
And now men doat on green frock coat, with pocket holes before!
The women, too, have taken the cue, and wear their chains of gold:
O for the lads, like our old Dads, who liv'd in times of old!

SPORTING OLIO.

(From the American Turf Register and Sporting Magazine, No. 2.)

FLYING KITE.

To the Members of Carroll's Island Wild Fowl Shooting Club.

SPORTSMEN ATTENTION!!

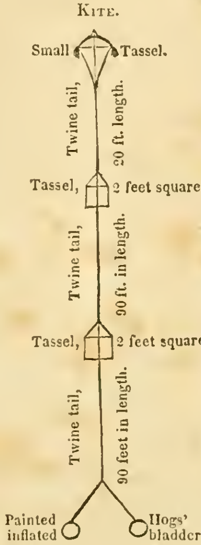
Probatum est.
Conticuere omnes, intentique ora tenebant.

Sir,—Presuming that you will cheerfully insert whatever contributes to the recreation of the land proprietors on our bay, river, and creek shores, I beg leave to make known the practical efficiency of the *Flying Kite*, for making all kinds of aquatic wild fowl on the wing, approach near to the sportsman stationed with his gun on the point, or shore side.

The kite which I use for this purpose, as a *Ruse de Guerre,* has its frame constructed of cane, and according to the English mode, is three feet by two feet and a half superficies, covered with scarlet colored thin florentine silk, so as to be of the greatest attainable lightness for flying with as little wind as possible, that it may be put into operation so much oftener than could be done were it heavier, and consequently requiring more wind to fly it. The scarlet color is adopted as being the most conspicuous of all others: and silk is used for the covering in preference to any thing else, that it may not be injured, or put *hors de combat*, by incidentally falling into the water. The tail consists of about twenty feet of twine, having at its lower extremity a piece of cane one-fifth of an inch in diameter, and two feet in length, transversely placed; to each end of which a foot and a half of twine is attached, and the other ends tied together so as to form a triangle. Assuming the piece of cane for its base, the edge part of two feet square of thin florentine (scarlet color,) silk is sewed round the whole length of the cane, so as to subtend it, and constitutes a tassel, which keeps extended, and by its flaring exhibition, thus appended by the apex of the triangle to the end of the tail, has the greater effect of making the wild fowl in flight approximate the sportsman. Ninety feet of twine, with a tassel at the lower end of it, of similar materials and construction, is fixed by the upper end round the middle of the cane of the kite's tassel. This second tassel is for the purpose of producing the same effect on the wild fowl flying much lower. About ninety feet of twine is also fixed by the upper end, round the centre of this second tassel's piece of cane, having two inflated supernatant hogs' bladders painted of a scarlet color, with vermillion and spirits of turpentine, for a tassel, suspended at the neck by three feet of twine each, and being tied together at the other ends, appended at the lower extremity of it, for the purpose of making the wild fowl on the wing, near the surface of the water, approximate the sportsman.

Inflated supernatant hogs' bladders, near the surface of the water, are preferable to any thing else. should the decrease of wind occasion their descent, as their weight becomes immediately removed by their floating. The greater or less force of the wind will indicate the capability of the kite's sustaining and flying with the three tails, two, or only one. When with only two, the painted hogs' bladders are to be substituted for the second scarlet colored silk tassel. The complete apparatus is here figured.

KITE.



This *Ruse de Guerre* of the flying kite, is a *sine qua non* on our bay, river, and creek shores, not having any point, or duck-bar; as it, notwithstanding, brings the wild fowl on the wing, within killing distance. It of course requires nothing more than adequate force of wind to effect the flying of the kite, either blowing on or off shore, or up or down the water. If on shore, when the river or creek is narrow, put a servant across to fly the kite from the opposite side; and let him know by the signal agreed upon to be made when the kite is in proper positional flight as to distance from you; when also to let her move out toward you, by giving more string; or to take her further from you by winding up some of it; according as one or the other is designated by the flight of the wild fowl, to be favorable or not, in throwing them near enough to you, or too much beyond your station.

When on the bay, or wide river shore, and the wind is blowing on shore, this same stratagem may be put into operation, by sending out a row-boat, the kite being carried its full length of string flight from the shore, on first starting from it in the row-boat, and held aboard in the flight all the way out. And as soon as the boat is far enough off shore for the kite being in suitable position for influencing the wild fowl, on the signal being given by the sportsman ashore to the persons on board the boat, the anchor is to be dropped, with the kite string tied to a piece of leading line rope attached to the cable of the anchor, of a length according to the depth of the anchorage, and the kite left flying; the boat being brought ashore and concealed from the wild fowl; as, if it remained out at the anchorage, it would cause them to fly high and out of shot. In like manner, should the wind happen to blow up or down the water, the kite is to be left in its proper positional flight; but in this direction of the wind, the anchor is required to be dropped at only half the distance from the shore.

The utility of attaching a piece of leading line rope to the cable, consists *in preventing the breaking of the kite string* in pulling up the heavier cable, *which would probably happen,* and be a very *mal apropos* contingency, *was it fastened to it:* whereas, being tied to a piece of leading line rope, *it will only have to sustain its trivial weight;* for as soon as the leading line rope is brought to the surface of the water, by pulling it with the kite string, it is to be taken hold of, and the cable to which it is attached, brought to hand for the purpose of raising the anchor.

When the sportsman is on a long duck bar, or narrow strip of land, such as Carroll's island, where the wild fowl in their flight, cross over at various intersectional parts, here and there, and thus perplex and circumvent him by the vexatious and fortuitous irregularity of their diverse flight; disappointing his expectations of fine sport, and frustrating all his shifts and manœuvres on the occasion, he can, nevertheless, most fortunately counteract and overcome this impediment to his success, by fastening the end of the string of one flying kite to a stake driven into the ground, at one hundred yards distance from the right hand of his stand; and the end of the string of another flying kite to a stake at one hundred yards distance from the left hand of it; (when the wind is blowing across the duck bar, or narrow strip of land, as here supposed,) and thus make the wild fowl in their flight, which would otherwise diverge, and cross out of reach, converge and cross within it, right and left; so as greatly to multiply the number of his shots; and thereby, instead of having very precarious and bad sport, have it *ad libitum,* and to his heart's content.

When the duck bar is of considerable length, and the wind is blowing in the direction of its course, then the end of the string of one kite in its flight, is to be tied to a stake close to the station of the sportsman; so as that its positional flight be at one hundred yards distance on one side of him; and the end of a string of another kite in flight, must be tied to a stake at two hundred yards distance on the other side of him; so that the two kites may be two hundred yards distant apart, in their flight one from the other, and equidistant, or nearly so, on each side of him, right and left. And the same management, with a parity of circumstances, is equally applicable to a narrow strip of land.

This flying kite is also admirably adapted to the frequent occurrence of a low tide; or of ice between the shore, and fluent water; each of which every sportsman too well knows, by dire experience, to be a most grievous hindrance to the approximation of the wild fowl on the wing, to any thing like within killing distance, even when the wind is blowing a hard gale, which is most auspicious for propelling them on the point. When the wind is blowing violently off shore, so as to force the wild fowl on the wing much further out from the shore than usual, I advise the flying of a second kite, so as that its flight be seventy yards, *or more, out beyond the other,* as may upon trial be found expedient; and this is also to be one hundred yards, or more, distant, on whichever side of the inner kite the wild fowl are flying in or out.

After the morning's shooting, when the wild fowl have ceased flying in, and fly to and fro; it becomes expedient to have two outer kites; one about a hundred yards, *or more,* on each side of your station: the effect of which will be to drive the wild fowl on the wing unusually far off, sufficiently nearer in for being brought as they approach the inner kite within its operation and influence, and throwing them within shot; this is most indubitably a great point gained.

Should the wild fowl appear, through the frequent local exhibition of the flying kite, to have become familiarized to it, and no longer so egregiously duped as is requisite, the effect can with all facility be fully restored, by a mutation of colour; as from scarlet to black, and *vice versa.* For ducks on the wing, about one hundred yards length of string, places the kite in proper position for controlling them, and producing their approximation. But not having put it to the test, I can only surmise that about one hundred and fifty yards will prove the suitable length fur swans and geese; which being much more shy, and more easily alarmed, make it requisite, we may presume, that the positional flight of the kite be more distant.

It is my intention to substitute a hair or silk line for flying the kite, and all other purposes for which the twine is used in relation to its construction, and its appendages of tails and tassels, iu lieu of twine altogether, as being infinitely stronger and more durable.

I have invariably been from boyhood among the keenest of sportsmen, and for these last twenty-four years particularly on our bay, river, and creek shores, in shooting the aquatic wild fowl on the wing; but often baffled to the most mortifying degree, in my pursuit of sport: till, by continually pondering how to attain the *desideratum* in view, (*hic labor hoc opus est*) I finally devised, and hit upon this project, and efficient *Ruse de Guerre,* for duping the wild fowl on the wing.

And so completely do I, from ample experience, consider this desideratum in requisition to be attained in every respect, that I have no hesitation in proclaiming it to be the *ne plus ultra* of stratagems in aquatic wild fowl shooting on the wing, for bringing the swans, geese and ducks, under the most adverse circumstances, *nolens volens,* not only within killing distance, but (nautically speaking) close aboard.

Your respectful and ob't servant,
ALFRED JONES.
Queen Ann's Co. Md. July 19, 1829.

MISCELLANEOUS.

MANUFACTURES OF IRON IN AND ABOUT PITTSBURGH.

Upon diligent inquiry, we learn that there are consumed annually in the different Foundries, Rolling Mills, and Steam Engine Factories, in and about Pittsburgh, *six thousand tons of blooms,* and *five thousand tons of pig metal.* These articles are brought principally down the Monongahela and Alleghany rivers last year considerable quantities were brought up from Ohio and Kentucky, and contracts have lately been made for a large quantity from Tennessee.

There are nine Foundries, which use about 3,500 tons of pig metal, and employ about 225 hands.

The Rolling Mills are eight in number, and are now chiefly employed in rolling Juniata blooms, of which they use about 6,000 tons. They also consume about 1,500 tons of pig metal, and employ about 320 hands.

There are nine Nail Factories, which manufacture daily about eighteen tons of nails, and employ about 150 hands.

There are also seven Steam Engine Factories, in which are employed about 210 hands. As yet but three steam engines have been sent east of the mountains, four or five to the northern lakes, and one to Mexico. Within two or three years past, the casting of sugar kettles, sugar mills, and small steam engines to drive them, for the planters of Louisiana has become a very important branch of our manufacturing business, and is increasing.

In addition to the metal and blooms above mentioned a large quantity of bar iron is brought to Pittsburgh from Juniata.—*Pittsburgh Gazette.*

MALARIA.—At a late sitting of the Academy of Medicine in Paris, M. Villernie read a paper on the influence of marshes upon human life, from which he drew the following conclusions:—In the salubrious portion of our climates, the winter and spring months are those which give the greatest number of deaths, and the winter is more favorable in the north than in the south. In marshy countries, the greatest number of deaths is in the months of July, August, September, and October; and the evaporation of the marshes is most fatal to persons from one to six years of age. The complaint which generally attacks children, owing to the malaria of marshes is stated to be an acute gastro-intestinal affection.

Among the valuable products of Florida, is the Cuba Tobacco, from which Segars, but little inferior to the best Spanish, are manufactured in abundance at St. Augustine. Sugar is also cultivated there with the greatest success, and is of excellent quality. [*U. S. Telegraph.*

THE FARMER.

BALTIMORE, FRIDAY, OCTOBER 16, 1829.

☞ CAULIFLOWERS.—Many inquiries have been made for the best and simplest mode of cultivating the cauliflower; and we beg leave to draw on our friends through this medium for the information desired.—We are well convinced that a knowledge of the proper mode of culture only is wanting to ensure a supply of this excellent vegetable in our markets.

☞ Though the Tobacco in this county was much injured by frequent and heavy rains in the summer, we learn that the crops will prove better than was at that time anticipated. No frost sufficiently severe to harm them has yet occurred, and many planters have already secured large portions of their crops. [*Md. Gazette.*

☞ By a letter from Sabine, received at Cincinnati, we are informed that the Spanish invading force had been totally defeated in Mexico, with the loss of their baggage, cannon and money.

LATEST FOREIGN NEWS.

By several arrivals at New York, intelligence has been received from Europe to the 10th September. The Russian head quarters were still at Aidos; the standard of the Prophet had been unfurled by the Turks, and they were waiting the approach of the Russians who were within eight hours march of Adrianople—dreadful carnage was anticipated. It was apprehended that Shumla would surrender. "The increasing willingness of the Sultan to enter into negotiations," is stated as official information in the London papers of the end of August. It is not probable that the Russians have consented to give peace without exacting heavy sacrifices and abundant guarantees. The Paris *Constitutional* affirms that Russia had offered securities to England.—It is said that the only defence at Constantinople was a fortified camp of twenty thousand men.—But, we shall soon hear of the denouement of this extraordinary war.

LONDON CORN EXCHANGE, Sept. 7.

On Friday last we observed that the best samples of new Wheat were full five shillings per qr. lower, and even more on the inferior qualities, with a large quantity remaining on hand. This morning the supply of new wheat we had fresh in was most abundant from Essex and Kent; but having no improvement in the condition, the sales were particularly heavy, and the prices must be noted about 5s per quarter lower since last Monday, with a considerable proportion of the arrival left unsold. Flour the same as last week. Barley mantains last week's value. Beans of both sorts, and Grey Peas are from 1s to 2s per quarter lower. White Peas are dull sale at our last quotations; the same may be observed of Oats.

LIVERPOOL CORN EXCHANGE, Sept. 8.

Since Tuesday last the arrivals of grain from Ireland and coastwise have been moderate. The weather still appears very unsettled, and although there was a pretty good attendance at market, sales were effected only to a limited extent, of any kind of grain; Wheat fully 4d a 9d, Oats 1, and Flour 2s per sack lower; on other articles no alteration. By the Act 9th Geo. IV. Cap. 60, passed 15th July, 1828, all preceding Acts are repealed, and the Winchester measure entirely abolished.

Wheat, per 70lb. English, 9s 3d a 10s 6d; Scotch, 9s 4d a 10s 4d; Irish, 8s 4d a 9s 9d.

Barley, per 60lb. English, 4s 9d a 5s 3d; Scotch, 4s 9d a 5s 3d; Irish, 4s 9d a 5s 3d.

Rye, per quarter, 32 a 34s.

Indian Corn, per 480lb. red 32 a 34s; white, 33 a 35s.

Flour, English, per 280lb. fine, 47 a 52s; Irish, 44 a 50s.

American, per 196lb. sweet, U. S. 36s 6d a 36s 6d; sour, bond, 27 a 28s.

LIVERPOOL, *Sept.* 10.—Wheat has declined 5s per quarter in the London market.

Sales of Cotton the last week, 20,000 bags Uplands are quoted 4 5-8 to 6½d.

PLOUGHS.

Friend J. S. Skinner,—Do me not only the favour but the justice, to say in the next No. of the American Farmer, that Sinclair & Moore, in advertising my Improved Ploughs for sale by them, have done so utterly against my consent. They had the offer in the first place, but rejected it. Since that I have disposed of the right to supply the demand for my Improved Ploughs in Baltimore, to Jonathan S. Eastman, and I have also given him authority and instructions to proceed just as the law directs in all such cases.

Very respectfully thine,
Georgetown, D. C. 10*th Mo.* 13, 1829. GIDEON DAVIS.

ANDREW PARMENTIER,

Proprietor of the Horticultural and Botanical Garden, Brooklyn, New York, at the junction of the Flatbush and Jamaica turnpike, 2 miles from the ferries, offers twelve of the most select Table Grapes, very hardy, of the north of France, at $6 the dozen, with directions for planting, &c. or at 75 cents a piece, separately—such as they are described in his catalogue. He also offers for sale Vines at 25 cents each, for vineyards, warranted to grow. They can be had from the 15th October to the 16th December, and from the 15th March to the 15th May—a great many did bear fruit last summer. He has a choice assortment of 242 kinds of apples, 190 kinds of superior pears, 71 cherries, 64 peaches, 15 nectarines, 85 plums, 15 apricots, 20 gooseberries, &c. some of very large size and in a fine bearing state. Also, apple trees, paradise stock, full of fruit. His collection of ornamental and forest trees, and of ornamental shrubs, is of 396 kinds, and more than 200 rose plants, and a fine collection of green house plants.

A. P. will undertake to lay out pleasure grounds and gardens, and will be happy in showing his port folio to amateurs, at his establishment and nurseries, which consist of 24 acres.

Orders directed to A. Parmentier, at his establishment, or to GIDEON B. SMITH, agent for the proprietor, at the office of the American Farmer, where catalogues can be obtained gratis, will meet with prompt attention.
October 16, 1829.

TUNIS MOUNTAIN BROAD-TAILED SHEEP.

A few rams of this breed crossed with the Bakewell; a full blooded imported Tunis ram, and a few Bakewell rams for sale by the subscriber—price $10 each, delivered in New York. VANBRUGH LIVINGSTON.
Near Yonkers, Westchester Co. N. Y.
October 6, 1829.

FARM FOR SALE.

The beautiful estate, called ANDREWSIA, situated on the Heights, within a mile of Wilmington, Delaware, and commanding an extensive view of that town—the waters of the Delaware and Christiana, and of the rich and picturesque country in a circle of many miles.

It consists of 168 acres, whereof 59 acres are natural meadow, in excellent order, 25 acres of wood lands, and the residue in fertile arable land, well sustained by a regular course of liming.

The *Mansion House* is built of stone, pebble-dashed, and the interior walls studded throughout, so as to exclude dampness at all seasons. The dimensions are sixty-two and a half feet front by forty-five feet deep, with colonnades to the piazza fronting the river. The Mansion is built of the very best materials, and in the modern style, having marble mantles and mahogany doors; and cost $15,400 to construct. The *lawn*, consisting of about three acres, is adorned with trees, shrubs and perennial and other flowers of the choicest kinds. The garden, attached, contains one and three fourth acres of prime soil, screened by a board fence six feet high, and is well stocked with choice peach, pear, quince and cherry trees, raspberry, gooseberry and currant bushes, strawberry and asparagus beds. There are two coach houses, stable for six horses, tool house, smoke house, seed house, bath house, (supplied by a never failing fountain of the best water,) wood, and wash houses, &c. &c.

The *Tenant's* house is in view at a suitable distance, and is a large, convenient two storied brick building, having two parlours, a kitchen, and five bed rooms. Attached to it are a good spring house, hen house and garden.

The *Barn* is of stone, and in perfect repair; underneath it is stabling for six horses and seventeen head of cattle. The barn yard is sheltered by a high stone wall in front, and by a new stone shed running from the northwest gable end of the barn to the aforesaid stone wall. The upper part of the shed destined for hay is constructed of wood, and has several windows to admit a free circulation of air, when required; the under part is capable of accommodating 31 head of cattle. There is likewise a wooden shed attached to the west by south gable end of the barn. Thus the barn yard is completely sheltered from the north and west winds.

There are two extensive apple orchards contiguous to the mansion, and tenant's house, and a lime kiln for burning oyster shells.

Within two years the ditches of all the meadows have been cleaned out, and new post and rail and board fences substituted in place of the old, and gates allotted to each field.

The situation of this estate is peculiarly advantageous, being on an excellent turnpike road to Wilmington, which affords a good market for milk, butter, poultry, fruits, vegetables, &c.; and not more than two miles from the Brandywine mills, where at all times wheat and corn command a fair cash price. The stores of Wilmington furnish every description of articles in the grocery, dry good and hardware line. Owing to the facility afforded by the *new steamboat*, which will commence running this month, and perform her trip to Philadelphia in three hours, a person may visit that city, spend five hours there, and return the same day to his evening repast; and the approach to Baltimore requires but a part of a day. Another advantage is the proximity to the Chalybeate springs, distant five miles; where, at the season, many friends and acquaintances from the neighbouring states are to be met with. The last and most important advantage in the location of the estate, is in its unquestionable salubrity, as experienced by the numerous family of the present proprietor.

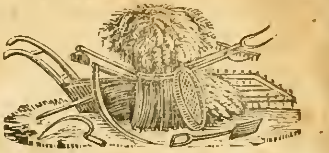
For further particulars apply to Capt. Joseph Nicholson, of U. S. Navy, Charles street, Baltimore; and for terms, to the proprietor on the premises.

Andrewsia, near Wilmington, Del. Oct. 4, 1829.

WANTED TO PURCHASE.

On an extended credit, a Farm of from 250 to 500 acres, within 15 or 18 miles of Baltimore, any where betwixt the Washington City and Frederick town turnpike roads. Inquire of Mr. Wilson of the House of G. B. Wilson & Co.

October 16, 1822.

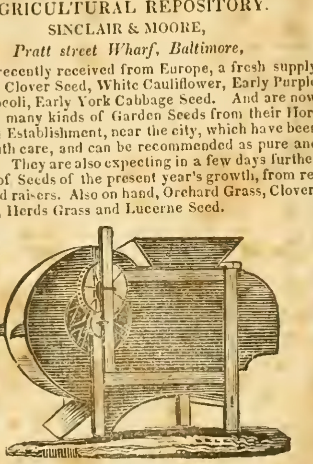


AGRICULTURAL REPOSITORY.

SINCLAIR & MOORE,

Pratt street Wharf, Baltimore,

Have recently received from Europe, a fresh supply of White Clover Seed, White Cauliflower, Early Purple Cape Brocoli, Early York Cabbage Seed. And are now receiving many kinds of Garden Seeds from their Horticultural Establishment, near the city, which have been raised with care, and can be recommended as pure and genuine. They are also expecting in a few days further supplies of Seeds of the present year's growth, from regular seed raisers. Also on hand, Orchard Grass, Clover, Timothy, Herds Grass and Lucerne Seed.

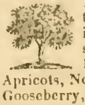


In store an extensive assortment of AGRICULTURAL IMPLEMENTS, among which are their highly IMPROVED WHEAT FANS; also the common fan and small box fans.

CORN SHELLING MACHINE improved, which will shell 250 bushels per day by hand, and may very easily be attached to a common horse power, or to water works, by which the quantity of work per day may be much increased.

They are also manufacturing a CYLINDRICAL STRAW CUTTING MACHINE, improved from the English plan, which cuts straw, corn tops, &c. with great rapidity by one hand, and may be attached to a horse power. This is a very effective machine and can be recommended with great confidence to the public. It can be adjusted instantly to cut any length from half an inch to one and a half inches. Also five other kinds of Straw Cutters, at various prices, according to size and mode of construction.

OF PLOUGHS, the assortment is general, embracing most of the improved kinds in use in this part of the country, and adapted to the different kinds of land and purposes of the farmer, viz. The Self-sharpening Steel point Plough, which performs well, and affords economy in repairs worth the attention of Agriculturists—The McCormick Plough, with wrought and cast Shares—Davis' Improved Ploughs, with wrought and cast shares. Woods' Patent or Freeborn Ploughs, cast Shares—Barshare Ploughs, with wrought iron and steel Shares, the kind best adapted to rough lands.—Subsoil Ploughs, Shovel Ploughs, Scarifiers, Harrows, Cultivators, &c. &c.



THE NURSERY which has the constant attention of the senior partner of the concern, is in a flourishing condition, and contains sixty varieties of Apples, forty varieties of Peaches, varieties of Pears and Plums; Apricots, Nectarines, Figs, Grape Roots and Cuttings, Gooseberry, Currant, Raspberry, Strawberry Plants, &c. with some Ornamental Trees and Shrubs, Thorn Quicks, &c. &c. For more particular information of the kinds and character we refer to the catalogue, which may be had gratis, at our store or at the nursery.

All orders promptly attended to, and trees put up so as to carry to any part of the United States.

ALMANAC.

1829. OCTOBER.	SUN. Rises.	Sets.	Length of days.	Moon Rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 17	6 31	5 29	10 58	9 56
Sunday,........ 18	6 32	5 28	10 56	10 52
Monday,....... 19	6 34	5 26	10 52	11 48
Tuesday,...... 20	6 35	5 25	10 50	morn
Wednesday,.. 21	6 36	5 24	10 48	0 45
Thursday,..... 22	6 37	5 23	10 46	1 41
Friday,......... 23	6 38	5 22	10 44	2 36

Moon—Last Quarter, 19th, 9 h. 23 m. Mor.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

BALTIMORE MARKETS.—There is very little Howard street flour coming in, and prices remain without change—from wagons $5.50 a 5.62½, from stores $5,62½ a $5.75. The grain market is dull, the news of good crops in Europe having depressed the price of wheat from 10 to 12 cents. There is a plenty of corn and oats in market.—LIVE STOCK. Beef on the hoof is very dull at quotations. Wood is dull at the prices quoted, which may be considered the highest rates.

TOBACCO.--Maryland, ground leaf, $6.00 *a* 13.00—seconds, ordinary, 4.00 *a* 6.00—red, 4.00 *a* 6.00—fine red, 6.00 *a* 13.00, for wrapping 7.00 *a* 12.00—Ohio, common, —— *a* ——.—good red —— *a* ——.—fine yellow 25.00 *a* 30.00. —Rappahannock, 3.50 *a* 4.00—Kentucky, fine 4.50 *a* 7.00—wrapping, 4.50 *a* 7.00.

FLOUR—best white wheat family, $6.50 *a* 7.00—super. Howard st. 5.62½ *a* 5.75; city mills, 5.25 *a* —— Susquehanna, ——. CORN MEAL, bbl. 2.37½—GRAIN, best red wheat, 1.05 *a* 1.07;—best white do. 1.10 *a* 1.15; ordinary to good, 1.03 *a* 1.10--CORN, white, .50 *a* .51; yel. .50 *a* .51—RYE, — *a* .50—OATS, .30 *a* .51—BEANS, 1.10 *a* 1.15—PEAS, .60 *a* .65—CLOVER SEED, 3.25 *a* 3.50—TIMOTHY, 2 *a* 2.50—ORCHARD GRASS, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50lb.—BARLEY, .45 *a* .50—FLAXSEED, .75—COTTON, Virg. .9½ *a* .10—Lou. .11 *a* .12—Alab. .9 *a* .10—Mississippi .10 *a* .12—North Carolina, .8 *a* .9—Geo. .9 *a* .10—WHISKEY, hhds. 1st p. .22½ *a* 23—in bbls. .24 *a* 25½—WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22--three-quarter, .25 *a* .30--full do. .30 *a* .50, accord'g to qual.—HEMP, Russia, ton, $210 *a* —; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, —— *a* 5.50—Herrings. No. 1, bbl. 3.75 *a* 4.00; No. 2, 3 50 *a* 3.75—Mackerel, No. 1, 5.37½ *a* 5.50; No. 2, 4.75; No. 3, 3.75—BACON, hams, Balt. cured, .9 *a* .10; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .30 *a* .31—Plaster Paris, cargo price per ton, $4.00, ground, 1.25 bbl.—Prime Beef on the hoof, $4.50 *a* $5.00. Pine Wood, by the vessel load, from 2.25 to 2.37; by the single cord, 2.50—Oak Wood, by the vessel load, 3.50 to to 3.62½; by the single cord, 3.75.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by JOHN D. TOY, corner of St. Paul and Market streets.

AGRICULTURE.

A NEW TREATISE UPON WOOL AND SHEEP.

Translated from the French by the Editor of the American Farmer.

(Continued from page 242.)

Section 1.

Of the Classification of the Fleece, and the Assortment of the Wool in its greasy state.

In a well administered flock the rams and ewes ought all to be numbered and registered. This is the only way of ascertaining the breed, and of insuring the improvement of fine flocks. For several years back our method has been to burn a mark on the horn of the rams, and adjust a tin collar numbered around the necks of the ewes. The animals are then divided into classes, according to the beauty of their wool, and particularly according to the uniformity of this beauty in the fleece. By such an arrangement, the proprietor is enabled to form a correct idea himself, as well as convey it to the purchaser, of the exact value of his produce; this arrangement is, moreover, useful in determining another classification previous to shearing, and by which the assortment is rendered easier.

This latter classification is made, by uniting in the first division all the animals upon which the handsomest wool is found; that is to say, the finest, the most equal, and the softest, *however small the quantity of it may be in each fleece,* and forming the other divisions of animals of less fineness, according to the degree of their inferiority.

It is, no doubt, necessary to be particular in determining these differences of beauty or fineness, but there are certain reasonable limits that should not be passed; hence, although the object of a good assortment be to collect together wools of as homogenous a nature as possible, still a complete resemblance is not to be looked for; for then it would be necessary, in many flocks to establish as many classes as animals. We must not, therefore, stop at trifling differences, such as the length of the fibre or colour of the grease.

Few flocks, however wanting they may be in uniformity, require more than five divisions of the adult animals; unless the bad custom has been followed of not shearing the lamb in its first year, which frequently compels a division of the eighteen months wool; for in the last of these divisions, embracing all the animals of decidedly inferior quality, all is equal, for all is bad.

In these five divisions we do not include the fleeces the wool of which is liable to break (*a laine cassante;*) that is, as we have already explained it, those wools which from old age, sickness, and defect of nourishment in the bearers, have at first become slender in fibre, and having grown out a second time under a more favourable state of things, are composed of two portions feebly connected to each other. This sort of wools should be classed with that of animals that have died of sickness, whatever be its fineness.

Having thus classed the adult animals, the lambs are then to be attended to, and arranged under two, or at most three, divisions, still preserving for the basis of the classification the uniformity of fineness and of softness.

The preliminary consideration to which we have just called the attention of the grower, must precede the shearing operation, and might hence be thought more pertinently alluded to before this latter operation; but it must be recollected that this arrangement has for object nothing more than to facilitate the assortment, of which we shall speak presently and consequently what we have just said came in appropriately in this place.

If it be required to save time and labour, every thing must be so arranged as that the assortment shall immediately follow the shearing, and that the wool pass from the table of the shearer to that of the assorter. In this manner, the fleeces will not have been doubled, rolled or entangled; they will have avoided all tearings to which they are liable in these several operations; and the several layers of wool will not have become glued together, so as sometimes to present great difficulties in separating them.

If his method be followed, which we give as the best and easiest, it will be necessary, previous to shearing, to have every thing ready for assorting. The detail of these preparations is as follows:

In the first place the number of assorters and their assistants must be regulated by that of the shearers, and these must be proportioned according to the size of the flock, and the time allotted for the operation. The rapidity of the operation will depend upon the uniformity of the fleece. Thus, the superfine fleeces, in which this uniformity is almost complete, and those entirely inferior, which are nearly all classed among the last sorts, take much less time than fleeces of middling qualities. Sheep also are generally much sooner despoiled than rams.

On the other hand, the shearer proceeds more rapidly in his operation with the ewes than with the rams, either on account of the size, the greater proportion of wool, and the difficulty of managing the animal or in consequence of the time it takes to shear their armed heads. Hence, it would be impossible to fix precisely the relation that exists between the number of workmen employed in shearing, and that of those who are to assort, without first knowing the skill of both, and the peculiar circumstances relating to the flock. Our opinion is, that two experienced assorters, assisted by two women, whose business it would be to carry and spread out the fleeces on the tables as they came in, would be able to keep up with twelve shearers.

Notwithstanding the advantage which the hurdle seems to have over the table for the purposes of assorting by allowing a part of the dung and other impurites to separate from the fleece, we think the *tables* should be preferred, because the wool slides better upon them, and that none of the locks are lost. The tables should be sufficiently large to allow a full display of the fleece; but should not be too large, for both of the assorters working at the same fleece, ought to be able to examine easily all the parts.

The greatest care should be had to place these tables in a favourable position as to light. This is important, because the appearance of a wool, and consequently the judgment which shall be formed of it, may change according to the various effects of light; and, generally speaking, we have observed that most judges, as we do ourselves, avoid the direct rays of the sun upon the fleeces—prefering to examine them in the shade. However, if the assorters have experience, they may, as regards this, be relied upon, and they will select a proper position for their tables.

Next is to provide necessary baskets to receive each quality of wool. If two assorters only are employed at the same table, or four at two tables, placed sufficiently near to each other to enable the workmen to throw the wool in the same baskets, the number of baskets must be that of the sorts of wool which the assortment is to yield. This number will be *five* when there are three classes of animals, *six* when there are four, and *seven* if there be five classes.

The store-house must be situated in a dry place. Each quality of wool is to be provided with its respective chambers, which should never have, whatever be the nature of the soil, a ground floor.

A pair of scales, adjusted near the assorting tables, are used to ascertain the gross weight of the baskets when filled, and before the wool is brought to the store-house. The tare is then taken and the net weight of the wool determined.

We cannot be too particular in calling the attention of the proprietors to the importance of keeping a correct account of each fleece in its greasy state, and of the various differences in quality which these fleeces afford, either collectively or individually. The assorting, in a flock in which all the animals are numbered and registered, offers a good opportunity of ascertaining the proper means to be employed for perfecting the wools, provided it be carefully attended to: because, the notes thus registered, will serve after the washing and sale, to give the grower a precise notion of the relative value of his fleece, and consequently to direct him in the choice of his breeders, and the general management of his flock. He will often be much surprised to find great differences in the prices of two fleeces of unequal quality, and nothing will so much induce him to look to the perfecting of his wools as this fact.

We shall have but little to say on the subject of the rules for assorting, as they are the same with those that are followed for the classification of the sheep previous to shearing.

The shearer must receive orders to reject those parts that are altogether inferior and *jarreuses* (composed of long hair,) which he will cut from along the legs, or the top of the head, near the horns, the cheeks, &c. These portions would soil the wool. They must be immediately thrown into a separate basket; unless it be desired to ascertain the total weight of the fleece before it is assorted; in this case, the shearer may gather them up, on one corner of his table.

The shearing and assorting should be commenced upon the animals of the first class, so that by successively passing from the one to the other, the assortment may be continued without interruption; for instance, the first qualities of the second class with the second qualities of the first, &c.; that is, when such an assortment is justifiable.

It must always be borne in mind, that the principle of a good assortment is the uniformity of the sorts, as regards *fineness, uniformity,* and *softness.* The length and shades of the colour in the fibre is otherwise of little importance: nevertheless, care must be had not to mistake the colour of the grease with that which may have been indelibly imparted by the urine; thus there will be found some wools of the belly, or parts of the belly, that can be assorted with other qualities, even the superior qualities, and others that must necessarily be classed with the yellow wools.

Respecting the lambs, which we have divided into three classes, we must again advise the shearers to separate with care, the inferior and *jarreuses* parts, which will be found to be in greater proportion in these young animals than in adults. Of this they should be the more careful, inasmuch as the fleeces of these lambs thus picked, may probably enter in *toto* in their assortment, without acquiring a second overhauling; at least for those of the last class.

However, we refer our readers to the several works that have been published on the subject of assorting, and we will resume by stating, *that this operation is easy and certain when a good knowledge of wool has been previously acquired;* but that otherwise, *it may lead to serious inconveniences, and very heavy losses.*

Section 2.

Of the Washing.

Before the manufacturer can make use of the wool it must have been thoroughly deprived of its grease, and this is generally done in the factory; but the wool may have previously undergone divers sorts of washing, when in the hands of the grower, or merchant. In some countries, the grower washes his fleece with cold water, on the back of the animal; more commonly it is sent to market in its greasy state; the broker between the grower and manufacturer receives it in either state; he has it picked and assorted, and finally subjects the raw material to a washing in warm water, which is called the merchant's washing (*lavage marchand;*) it is only after this operation that it is offered to the manufacturers.

The processes followed in these several washings, are too well known to require any account of them here. Our intention is briefly to examine their comparative results, and to confine ourselves to that method which appears to us should have the preference, both in the interest of the grower and manufacturer. When we shall have shown its advantages and recommended its adoption, we will then be prepared to enter into the details of the practice calculated to insure its success.

Of the Washing of the Wool on the back of the animal.

This mode of proceeding is adopted in the greatest part of Germany, and in some provinces of France. It must be observed that this mode of washing is an innovation on the treatment of merinoes, for this race was not subjected to it in Spain, whence we have drawn it, and is now adopted there and in those countries where it had been practised upon the indigenous breeds, but since the adoption of the system of crossing.

We are not sure that this method is not without some inconvenience as regards the health of the animals; accordingly, it is not a rare occurrence to find the sheep die, or at the least, contract dangerous diseases, as a consequence of this operation. This inconvenience is particularly sensible in the neighbourhood of high mountains; that is, in localities that are subject to sudden changes of temperature. Perhaps it will be asserted that the races of sheep are susceptible of becoming habituated to this washing, to such an extent that the chances of accidents are so diminished as to amount to almost nothing, every thing depending upon perseverance; but, without denying altogether the powerful influence of habit, (by-the-by quite inexplicable.) we persist in thinking, that it cannot be introduced without some danger in those places where it has not been practised before; and that even where it is most used, it is impossible to avoid altogether its fatal results.

But, on the other hand, the washing of the fleece on the back of the animals presents some advantages, which we shall endeavour to point out.

We have already seen that nothing was more indeterminate than the evaluation of wool in its greasy state, in consequence of the great variation in its cleanliness, and its corresponding less in the operation of washing. Yet, it is this very evaluation, uncertain as it may be, that is to serve as a criterion to the grower who sells, on the one hand, and the merchant who buys, on the other. Either may be led into serious mistakes; but the merchant may compromise the accidents arising from false evaluations, by offering a price founded upon the minimum of produce alone, whereas the grower, who, for the most part is ignorant of the real value of his wool, is almost always compelled to depend upon the estimate of the buyer himself. It follows, therefore, that an important point will have been gained, if we can succeed in simplifying the data upon which the true rates for the sale of wool should be established. It so happens, that washing the wool on the back of the animal affords us a means of doing this, because it deprives it of a part of its grease and of the impurities which it collects in the fold, thereby limiting the extent of losses. Our experience teaches us that this loss may extend in greasy wools from sixty to eighty per cent.

In fact, it is but too true that certain wools in the greasy state have yielded only twenty per cent. after the complete washing, whereas, others of a cleaner sort have yielded as much as forty per cent; that is, twice as much. But the loss which wools washed on the back can experience after a complete washing, does not range wider than between twenty-five to forty per cent., since there are some that yield as much as seventy-five per cent., and others only sixty.

It will already be perceived, by this difference, that the buyer will not run the risk of committing, at his own expense, so great an error in the valuation of a wool washed on the back, as of one in a greasy state, and hence he can make a better offer to the grower. This, however, does not suffice; and we trust we shall be able to show directly that the data which are to serve as bases of evaluation may become more and more certain. In the mean while, we shall point out the reasons wherefore it cannot be expected that we will completely attain our object, by means of washing on the animal: 1st, because it is very difficult for this mode of washing to clear entirely the fleece of its impurities; 2d, it is necessary, after this washing, and previous to shearing, to allow the wool to dry; in the meanwhile the grease is secreted anew in more or less quantities, and the fleece can receive new impurities, either before or during the shearing operation.

Before we conclude this subject, we must remark, that the French proprietors who follow this mode of washing on the back of the animal, are far from taking the same care that is done in Germany. The latter, with a view of obtaining an approximative notion, as accurate as possible, of the probable value of their produce, so as to be enabled to ascertain the true worth of their wools, are not satisfied with simply washing on the back, but they assort, to a certain extent, their fleeces, and throw them commonly into the market only after having separated from them, *the entirely inferior sorts.*

(To be continued.)

(From the British Farmer's Magazine.)

ON THE DISEASES OF GRAIN.

(Concluded from p. 242.)

Of the Spur, or Ergot.—The *spur* is a disease that has long been known, and is peculiar to rye and some other graminous plants. It is also called by the French the *clou, horned rye,* &c. It is a production of the seeds; is long, horny, and cartilaginous, and is sometimes straight, at others curved; sometimes it is found more than two inches in length. The resemblance of this substance to cock's spurs has given it the name by which it is distinguished. On breaking a spurred seed, you find within it a substance of a dull white colour, adhering to the violet skin that surrounds it. Rye thus attacked cannot germinate.

The causes of this disease are not rightly understood. On surveying the different opinions of philosophers, we find nothing but doubt and uncertainty. These opinions, however, may be reduced to seven.

The first attributes the spur to the humidity of the air; the second, to the seed getting mouldy in the ground when it does not readily germinate; the third, to the presence of a caterpillar, or other insect, which perforates the seed and thus creates in it a sort of sore; the fourth ascribes it to the moisture of the soil; the fifth to a defect in its fecundity; the sixth to parasitical plants of the mushroom family; and the seventh is the opinion of Gaspard Bauhin and M. Taranget of Douay, who attribute the spur to the rupture of the seed, occasioned by too great an abundance of the juices of the plant, which burst out and run over. To give more precision to these ideas, I shall reduce the above opinions to five. The first and fourth can only make one, since the atmosphere is never so humid as in countries where the soil is habitually damp; the fifth, also, is only an immediate consequence of all the others, or of one of them alone; the third is scarcely probable, while the rest have a character of reality.

The opinion which attributes the spur to the mouldiness of the seed in the ground, is supported by an instance that occurred in 1784, when the rye that was sown in a light soil got mouldy before it germinated. Hence, in that year, the crop abounded in spurred plants. The observations of M. Gaspard Bauhin and M. Dodart appear to confirm this last opinion. They both assert that the spur is very general when heavy rains are succeeded by hot weather.

M. Tessier remarked that the most rainy years were the most productive of this disease; that the soils on which most spurred rye grew were most moist; that high grounds were nearly free from them, unless when the furrows prevented the water from running freely off,—while the lower parts of the same field produced more than the upper parts, &c.

This disease is not contagious, nor is it propagated year after year; nevertheless, the effects it produces on persons who eat bread made from the rye that is infected by it are sometimes terrible. It is said to be a real poison, which almost always occasions death, after causing convulsions, heaviness, giddiness, and most acute pains in the limbs. It generally affects the legs, feet, arms and hands, with a disease called the *dry gangrene*—insomuch that they dry up and fall off. Men have been attacked with this disease, who, though with only the head and body remaining, have nevertheless lived several days in this deplorable state! M. de Salene, a physician of Orleans, asserts, in an essay published in 1748, that out of an hundred patients four only escaped.

Spurred rye is equally dangerous to animals. Sometimes they have been cured by means of milk. The same remedy is therefore worthy of trial upon man. M. Taranget, already mentioned, thinks that in all cases the degenerated limb ought never to be amputated, but that it should be left to nature to separate the dead from the living part. All that can be done is to prepare the parts for this separation.

I shall add nothing to this sketch of the calamities which spurred rye sometimes produces. It is terrific to reflect on the inattention with which this plant is cultivated; it being sown, with the utmost disregard, in lands favourable for the cultivation of corn. In general, the farmers are not choice in their seed; they seldom steep it, and, in short, take scarcely any precautions. It is, therefore, useful to offer advice to them, and to repeat, that to avoid such serious accidents they ought to sow rye in none but high lands; and that in moist ground the furrows ought to be carried higher than usual, in order to give the water every facility for running off. M. Tessier thinks that it would be advisable to sow rye only on soils that have been ploughed several times, and sufficiently prepared. He suggests, also, that the spurred seed should be separated from the rest by means of cribbles, the holes in which should only allow the good grains to pass, as these are smaller than the spurred ones.

Of the Running.—By the expression *running* (*couleur*,) when applied to fruits, we understand *not setting;* or *miscarriage*, when speaking of flowers. Corn, and in general all the cereal plants, are exposed to this unfruitfulness. The ears, instead of being filled with good seeds from top to bottom, have them only at the lower part, or else the seeds are less numerous, and deficient in flour.

The variations of the atmosphere, such as abundant rains and high winds, when the flowers get entangled, cause the fecundating dust to be carried off, and occasion miscarriage. Frosts, thick and frequent fogs, too great dryness, and even lightning, may be considered as so many causes which produce this unfortunate accident amongst corn.

Of the Laying, or Laying Down of Crops.—The *laying* of wheat (called in French *la verse*, or *le versage*,) and many other cereal plants, is an accident occasioned by high winds, storms, heavy rains, or by too much folness acquired by the plants through hot and moist weather. It then happens that the stalks are large, but hollow and soft; their herbaceous and fibrous parts being only nourished by water, they are weak and smooth—hanging down and twisting together by the most trifling cause.

If the laying takes place in the month of July, a period when the grain approaches to maturity, its effects are little to be feared, because they do not generally prevent it from obtaining its nutriment, and ripening; but if it occurs before the ripening it may materially injure the crop. The stalk, by being laid, cannot convey nourishment to the grain; its canals are obliterated, and the passage of the sap necessarily interrupted.

It is scarcely possible to prevent the laying of corn, which happens, as I have said, from heavy winds and rains, &c. Nevertheless, it has been observed that corn, when clear-sown, is less liable to be laid, because it grows stronger and expands more; while, on the contrary, when it is thickly sown, the sap always rises perpendicularly, the stalk grows too high, and has not sufficient power of resistance; it therefore bends and falls, either from the least agitation or from the weight of the rain, that presses it down.

Sundry Instances of False Philosophy, on Agricultural Subjects, pointed out and refuted,

by W. Aiton, Esq.

[*Extracts*—from the British Farmer's Magazine.]

I pointed out in a previous communication, an error gone into by Sir Humphry Davy, and Mr. Sinclair, in imagining they had ascertained the quantity of nutritive matter in about 100 different kinds of grass, merely by mashing them in hot water, and drying and weighing the solution. The same learned author has, in his Elements of Agricultural Chemistry, raised his voice against the ancient and laudable practice of summer fallow. He says, (p. 358,) "the benefits arising from fallow have been much over-rated." In page 23 he argues, that fallowing of land "affords no new source of riches to the soil." "It is (he says) scarcely possible to imagine a single instance of a cultivated soil, which can be supposed to remain fallow, for a year, with advantage to the farmer" And in page 354 he says, 'It may be doubted, whether there is as much useful manure in the lands at the end of a clean fallow, as at the time the vegetables clothing the surface were first ploughed in." And Mr. Steel, writer to the signet, in some learned communications on the subject of fallow, published in the first volume of the *Farmer's Register*, has endeavoured to show the error of naked fallow, from the authority of the classics, the practice of the Chinese, and the writings of Sir Humphry Davy.

But with all manner of respect to these learned authors, and without either ransacking the Greek and Roman authorities, or inquiring into the practices of the Chinese or the Tartars, I am decidedly of opinion, that naked fallow is, in all loamy and heavy land, and particularly in all land where clay abounds, not only a rational improvement, but an operation highly necessary, at proper intervals; and one which the experience of ages and centuries has proved to be highly beneficial. It is probably true, that those who, last century, imputed the fine crops, that are generally obtained after fallow, to the collection of salts, or nitre, in the operation, were so far mistaken, as Sir Humphry says. But surely the destruction of weeds, the reduction of them, and all other inert vegetable matter in the ground, and the deepening and pulverizing of the soil, by a course of summer fallow, are advantages that cannot be disputed. Though I am but ill qualified to point out all the effects which the exposure to the atmosphere has upon land when under a course of fallow; nor could such an inquiry be entered upon here; still I am satisfied, from the well-known fact, that where ever land is subjected to a regular course of summer-fallow, the soil is so much improved and enriched by it, that the first crop generally repays the whole expense. This fact may not be known to people brought up and living in London, or Edinburgh, and deeply engaged in chemical researches, or in the labours of a law agent; but they will not be disputed by any person who has been bred a practical farmer, and seen and experienced the good effects of summer fallow, on all sorts of clay or heavy land. And if the beneficial effects of naked fallow has been experienced for ages, and is still resorted to by every intelligent and industrious farmer, it must go farther in deciding that point than volumes of theory from men ever so much learned in chemistry or in law. Sandy soils may be kept clean of weeds by spring fallows, drill crops, hoeing, weeding, &c., but in all heavy and clay land, an occasional course of fallow is indispensably requisite, in order to overcome the weeds, bring the inert vegetable matter in the soil into operation, and to deepen and pulverize the soil. Such has long been the well-founded opinion of the most intelligent farmers, and they have acted according to that opinion, and have found their interest in doing so, whatever may be the practice in China; and they will not, I am certain, be driven from an approved practice by mere speculative theory. Experience is the farmer's surest guide, and in no other instance has it been more fully brought to the test than in fallowing land occasionally

Sir Humphry Davy says, p. 355, "The texture of the soil is not so much improved by its exposure in summer fallow as in winter, when the expansive powers of ice, the general dissolution of snows, and the alternation from wet to dry, tend to pulverize it, and to mix the different parts together." But if Sir *Humphry* had been a practical farmer, or had resided much among farmers, he would have known, that though frost so far opens a clay soil, yet the winter rains do not "tend to pulverize it," as he supposes, but the reverse: neither is there during winter any such "alternations from wet to dry as can tend to pulverize the soil, or to mix its different parts together." Frost opens the pores of the ground, but it does not reduce the weeds, and vegetable matter in the soil, to the food of plants. If the farmer could command frost as he does fallow, he would likely apply more of it to the land than nature furnishes, in order to open and pulverize the stubborn clay soils; but rains uniformly sour the clay, and form it into mortar; and as to the dry times he reckons upon in winter, to pulverize the soil, we have no such drought at that season of the year in Scotland, nor even in England. Neither does any of the alternations of the weather which the learned Baronet refers to, mix the different parts of the soil together, as he seems to imagine; but all these improvements are accomplished by a course of summer fallow, The repeated ploughings deepen and mix the soil, and by exposing it alternately to rain, drought, sunshine, and air, it is mixed, deepened, and pulverized; and it is also enriched, by having the weeds and whole vegetable matter in the ground reduced to the food of plants.

(From the New England Farmer.)

BRIGHTON CATTLE SHOW.

The annual exhibition of cattle, the ploughing match, &c. was held at Brighton, on Wednesday 14th inst. The day was uncommonly pleasant, the colection of people larger than we ever before witnessed on this occasion, and the exhibition as interesting as on any former occasion.

The subscription premium of $100, for the best butter, not less than 300 lbs. was not awarded. The committee reported that three entries only were made, and neither of these of a quality sufficiently excellent to justify them in awarding it.

Live Stock.—The exhibition in this department was very fine. Many of the pens were filled with stock of excellent appearance from J. L. Boylston, Esq Hon. John Wells, and John Prince, Esq —one of Mr. Boylston's oxen weighed 2451 lbs.—one from B. Harrington weighed 1750—one bull from Mr. Harrington, 1 year and 6 months old, weighed 1094; a fine bull 15 months old, weighed 1092 lbs from Wm. Worthington, of Dorchester—a fine bull belonging to the town of Cambridge, 3 years old, weighing 1512—a bull from S. Conant, of Concord, weighing 1060, and a very fine one, weight not mentioned, from Nathan Grout, of Sherburne—fine fat oxen from Samuel Sweetser, of Athol. There were fine *heifers* from Benj. V. French, of Braintree—C. Newhall, of Dorchester—John Prince, Esq of Roxbury—Nath'l Curtis, of Roxbury—M. Vose, of Watertown—Z Cook, Jr. of Dorchester—John Perry, of Sherburne—E. Fiske, of Weston—Benj. P. Williams, of Roxbury—John King, of Medford—J. W. Watson, of Princeton—E. Stedman, of Cambridge—C. H. Billings, of Roxbury. Cows, with and without calves, from Ralph Haskins, Esq. of Roxbury, (Mr. Haskins' cow is celebrated for the remarkable richness of her cream)—Wm. Worthington, of Dorchester—J. Stickney, of Essex county—Mr. Buttrick, of Concord—J. Battelle, of Dover—Z Cook, Jr. of Dorchester—E. Stedman, of Cambridge—Peter Paige, of Shirley—L. Hosman, of Bedford—J. Coolidge, of Watertown, and J. Clark, of Charlestown. *Fine Calves* from E. Silsbee, of Boston—J. Lemist, of Roxbury—T. Williams, of Chelsea—C. Newhall, of Dorchester. *Fine Bulls*, other than those mentioned above, from Col. Jaques, of Charlestown—T. Larned, of Watertown—S. Dudley, of Sutton—B. V. French, of Braintree—Benjamin P. Williams, of Roxbury—Alfred Welles, of Dorchester.

Mr. Aiken of Dracutt, exhibited several ingenious inventions, which he has patented; one of these was for splitting straps of leather to any degree of thickness for braiding, thongs, &c. An apparatus is attached to it whereby leather may be shaved, *bevelling* in a greater or less degree, for shoemakers, price $4; also, a saw-set, to regulate with exactitude the teeth of a saw, and a machine for cutting scions from trees, and other purposes.

Some fine specimens of silk were exhibited by J. H. Cobb, of Dedham, in single and double cocoons, in the different stages of manufacture, and also made into elegant fringe tassels, combined with worsted.

Among several extraordinary productions of the earth, were some lemons from a tree in the green house of the late Hon. Timothy Bigelow, of Medford, some of them 17 inches in circumference. This tree is one of the greatest curiosities in the country, having upon its branches *three hundred lemons*, the greater part of them of extraordinary dimensions.

[From the New Hampshire Journal.]

POTATOES.

To the Hon. Agricultural Societies:

The following was the product of four plats in the Suncook Factory gardens, planted the first week in June, with cut pieces, in drills, one foot apart, covered with a slight dressing of horse manure, hoed twice—gathered on the 22d of September, carefully weighed, and the ground exactly measured. The weeds were carefully pulled up whenever they appeared. The average weight of the potatoes when gathered was 54 pounds a bushel.

On 168 square feet, 126 lbs. at the rate of 32,670 lbs. or 605 bushels per acre. On 1849 do. 1435 lbs. at the rate of 33,806 lbs. or 626 bushels per acre. On 324 do. 384 lbs. at the rate of 51,626 lbs. or 955 bushels per acre On 122 do. 147 lbs. at the rate of 52,488 lbs. or 972 bushels per acre. C. Stark.

Pembroke, October 2, 1829.

HORTICULTURE.

SWEET ALMONDS, FILBERTS, &c.

Mr. Skinner:

It seems highly proper that we as Americans should turn our attention to every species of culture which will remunerate for the labour, more especially where we are dependent at present on foreigners for a supply. The culture of the sweet almond, whose fruit is now imported in such quantities, is one of the articles which could easily be produced to any extent, particularly in Virginia and south of it. Filberts can also be raised in any quantities, on trees or large bushes, planted as hedges, and which thereby subserve a double purpose.

It also seems astonishing, that two such valuable fruit trees are so little cultivated as the Spanish chestnut and the Madeira nut or English walnut.—The former produces very large fruit of excellent quality, in the greatest abundance, and in the south of France, Spain, Portugal and Italy, it forms a most valuable article of food for the poorer classes, and is a regular article of sale for that purpose. It is but seldom this fruit finds its way to our markets from Europe, but a plentiful supply might easily be furnished by planting orchards of this tree, the same as we do with the apple, or by planting them along avenues and high-ways; and there is no doubt they would as well repay the proprietor as an orchard of any other kind.

The Madeira nut may be planted in the same manner, and would yield also an ample remuneration, as the nuts are sold when green for a dollar the hundred, for pickling, and when ripe are in great request for the table. Hortus.

(From the New England Farmer.)

NOTICE OF THE "SYLVANGE VETRE" PEAR—In English, the "Green Sylvange."

Mr. Editor,—By some accident I omitted in my publication last spring, any proper notice of this admirable pear, perhaps one of the greatest acquisitions we have made; of which, however, my horticultural friends will judge from the following facts and history.

I received *scions* only of this pear, from Mr. Knight, under the name of *Sylvanche verte d'hyver*," which means "Green winter Sylvanche."—Mr. Knight's name for the pear was erroneous, as the following history will show, and it will not be extraordinary to cultivators who know how soon names become changed, owing to the ignorance and carelessness of gardeners, but, certainly not Mr. Knight's carelessness. Before I give the account of the origin of this valuable pear, I will simply state its history, since its arrival *here*. I divided the scions, (for I had no tree,) between myself and Mr. Parsons. I had forgotten where I inserted them, but *he* had preserved the *labels*. Last year I had three very extraordinary pears, of great size and uncommon excellence, and was at a loss what to call them. I gave one of them to S. Downer, Esq. of Dorchester, who tasted it, when ripe, and admired its qualities. I thought, also, that it was a pear of first rate excellence. This year I had a peck of them of great size, and so unpromising in appearance, that an observer would suppose them to be a baking pear only. Just at this moment, yesterday, I received from Mr. Parsons, the *same* pear, identical in form and appearance, and scientific description, assuring me that he received it as the "Sylvanche verte d'hyver" from *me as sent* by Mr. Knight. This led of course to an examination of all the accounts of the Sylvanche pear, and it resulted in *perfect knowledge*, that it is the "Sylvange verte," a native pear of France, growing near Verdun, a town famous for the residence of many hundred English prisoners, seized by Bonaparte on the breaking out of the war in 1802.

I submit the following account from the London Horticultural Transactions, vol. v. p. 429, given in a letter from Mons. Charles Francis Pierard, a corresponding member of said Society.

"There are three varieties of Sylvange pears. They derive their name from a small village of that name near Verdun." We shall copy only what he says of the "Sylvange verte."

"Of the Sylvanges, the green is much preferable, and ought to find a place in every good garden. It is a middling sized pear, (with us in America an enormous one,) varying in its form.—It is usually flattened towards the head, rounded towards the stalk, or terminated by a very blunt point. The fruit is a little swollen towards the middle, and irregular in its outline; the skin is of a bright green on the shaded side, of a dark green and besprinkled with gray spots on the exposed side,—the whole of the skin is rough, and marked with large black or gray spots,—the stalk is short, slender, and placed obliquely in the fruit, by the side of a slight elevation,—the eye is small, and lies in a slightly depressed cavity, the edge of which is studded with several knobs,—the flesh is sensibly green near the skin, white in the centre, soft, saccharine, and of a peculiarly agreeable flavour.

"The Green Sylvange ripens in October, and keeps till the end of December.—Besides the advantage of not rotting soon, like the Beurré d'Angleterre, the Epargne, &c. &c.—it has also that of never being gritty.—It requires a sheltered situation, and not a strong soil."

Such is Mons. Pierard's description of this new variety of natural pears. I have inserted it at large, in order that cultivators may know whether the fruit sold to them as this pear, is truly such or not. I feel sure that Mr. Parsons and myself have this identical fruit. It differs only in its size—his weighing 13 ounces, and mine 11—in all other respects, it agrees with the description. Its great fault is, that it bears too exuberantly. It ripens well in our climate, and a tree of medium size would yield at least four barrels. A stranger would suppose it to be a coarse fruit, but from specimens which I shall send to the Horticultural Society of Massachusetts, I have no doubt they will place it by the side of the Chaumontelle and St. Germain. I now send one specimen for inspection to the Horticultural Society, though it will not be ripe till about December. Mons. Pierard says it ripens in October, and will keep till December. I am inclined to believe this to be true, because one pear, out of a peck, has *already ripened*, though others are as hard as the one now sent. J. Lowell.

Roxbury, October 8, 1829.

PLANTING FRUIT TREES.

Towards the last of this month, you may generally transplant most kinds of fruit trees, but not till after they have shed their leaves. This, according to M'Mahon, may also be done to advantage during the whole of next month, if the season continues open, provided the ground in which you plant be dry, and does not lodge water in the winter months; and likewise sufficient pains be taken to make each tree fast in its place, by nailing or binding it in such a manner as not to be rocked about by the winds: otherwise spring planting, if done early in March, will be more successful particularly for the peach, nectarine, and almond.

Perhaps the best mode of dealing with fruit trees is that practised by Elias Phinney, Esq. of Lexington, Mass. one of the most successful cultivators in New England. In his reply to certain queries of the Hon. Mr. Lowell, and others, constituting a committee of the Massachusetts Agricultural Society, Mr. Phinney observes, "Most of my trees were taken from the nursery in November, the roots placed in trenches, and covered with dirt until the following spring. This was done to avoid the necessity of setting them out before the ground had become warm and dry. If left in the nursery till spring, they are seldom or never taken up until the sap has begun to flow. When removed after this takes place, the check occasioned by the removal, if not fatal to the tree, often injures its future growth.—The best time to take up trees is, unquestionably, when the sap is least active. If taken up late in autumn, and the roots secured from the sun and air they may be kept with perfect safety until the middle of May, and planted out at this time with proper care, and as near the surface as possible, vegetation commences almost instantaneously: they will not require to be supported by stakes, and will grow nearly as much the first as in any future year."

[*N. E. Farmer.*

INTERNAL IMPROVEMENT.

[From the Village Herald.]

CANALS, &c.

New- York—has borrowed nine millions of dollars, to complete her Erie and Champlain canals.

Ohio—has borrowed and will require five or six millions to complete her canals.

Maryland—will want and must borrow, at least eight millions, before her rail-roads are completed.

Pennsylvania—has borrowed, and now owes about seven millions of dollars, including $2,200,000 of the last loan, all of which is not yet taken—and from this sum, five millions may be deducted for bank stock and other property belonging to the commonwealth, leaving only two millions, actual debt up to the present time. Is there a state in the union that can show such a statement? Besides, two thirds of the state works are now finished, and of course, two thirds of the expenditures disbursed, on the Pennsylvania canal, uniting with the Union canal, at Middletown, to Pittsburg; on the lateral branches on the Susquehanna and on the Delaware canal, from Bristol to Easton.

Philadelphia—has disbursed nearly as much money on canals as the state itself.

The Schuylkill canal (in round numbers,) cost	$3,000,000
The Union canal,	1,900,000
The Chesapeake and Delaware,	1,700,000
The Lehigh,	1,000,000
	$7,600,000

WEST BRANCH RAIL-ROAD.

Last week the ground was broken to commence this improvement, and upwards of one hundred and fifty men are now engaged in grading the ground preparatory to laying the road. It will consist of two tracks—laid in a very substantial manner.

The road commences at Schuylkill Haven, and extends up to the confluence of the West and West West branches of the Schuylkill—from whence branches will follow the direction of the two streams to the foot of the Broad mountain; making a distance, altogether, of about 17 miles. It is supposed that the whole route will be completed by the middle of next season.

At Schuylkill Haven, a beautiful town has been laid out by Mr. Daniel J. Rhoads and others, who offer lots for sale on very accommodating terms.

The distance of the different rail-roads completed, commenced, and contemplated, in this region, is as follows:—

Schuylkill Valley Rail-road,		10 miles.
Mount Carbon	do.	8
Mill Creek	do.	4
West Branch	do.	17
Little Schuylkill	do.	22
Making an aggregate distance of		61

This estimate is independent of the numerous lateral roads that will branch off from the main tracks, throughout almost every portion of the coal country.

If we can send to market this season 65,000 tons of coal, with our present crippled mode of conveyance to the landings, what quantity may the consumers expect from us next year, when the greater part of the above mighty engines will be put in force? [*Miner's Journal.*

COAL TRADE OF THE SCHUYLKILL.

Shipments of coal from Mount Carbon to Philadelphia.

			Tons.
Week ending 3d inst.	81	boats carrying	2,070
Per last report,	1891	do. do.	50,596
Total,	1972		52,666

Pottsville, Schuylkill County, Oct. 3.

On Monday evening last we had a very copious shower of rain, which has put the canal in fine navigable order.

In New York, Schuylkill coal is selling at from *twelve* to *fourteen* dollars per chaldron, (36 bushels.) In Philadelphia *seven dollars and fifty cents* per ton is asked by the greater part of the coal merchants, and the wharves are quite bare. This will be a fine harvest for the operatives here, and cause them to exert every nerve to make the best use of the time allotted them, previous to the closing of the navigation.

Mount Carbon Rail Road.—On Wednesday last, W. R. Hopkins, Esq. an able and experienced Engineer, arrived at this place, to take charge of the construction of the above road. He is now actively engaged in levelling and fixing upon the route. We understand the road will be graded this fall, and the rails laid early in the spring.

LADIES' DEPARTMENT.

[From the Village Record.]

BOB AND HIS WIFE.

I once knew a ploughman, Bob Fletcher his name,
Who was old, and was ugly, and so was his dame,
Yet they lived quite contented, and free from all strife,
Both Fletcher the ploughman, and Judy his wife.

As the morn streak'd the east, and the night fled away,
They would rise up to labor, refreshed for the day;
The song of the lark as it rose on the gale,
Found Bob at the plough, and his wife at the pail.

A neat little cottage in front of a grove,
Where in youth they first gave their young hearts up to love.
Was the solace of age, and to them doubly dear,
As it called up the past with a smile or a tear.

Each tree had its thought, and the vow could impart,
That mingled in youth the warm wish of the heart;
The thorn was still there, and the blossoms it bore,
And the song from its top seemed the same as before.

When the curtain of night over nature was spread,
And Bob had returned from his plough to his shed,
Like the dove on her nest, he reposed from all care,
If his wife and his youngsters contented were there.

I have passed by his door when the evening was gray,
And the hill and the landscape were fading away,
And have heard from the cottage with grateful surprise,
The voice of thanks-giving, like incense, arise.

And I thought on the proud, who would look down with scorn,
On the neat little cottage, the grove, and the thorn,
And felt that the riches, and follies of life
Were dross, to contentment like Bob and his wife.

SIMPLICITY.

As the sun in all his splendor was peeping over the eastern hills, a newly married man exclaimed, "The glory of the world is rising!" His wife, who happened to be getting up at that moment, taking the compliment to herself, simpered out, "What would you say, my dear, if I had my new silk gown on?"

SPORTING OLIO.

PRIDE OF CHINA TREE.

Antidote to Fleas.

Mr. Skinner.

Believing that whatever contributes to the comforts of his dog, affords pleasure and interest to the sportsman, I offer the following for your Sporting Olio:

I have for several years observed that my old dog, who is very sagacious in other matters, has at times chosen his bed near the trunk of a *Pride of China tree*, (Melia Azedarach,) which appeared to me much less comfortable than his more usual place of repose—in fact, the dog seemed so well aware of this, that he never continued it more than a night or two in succession; and as at other times he uniformly took one place, I became a little curious about this temporary change. On mentioning it, a few days since, to a friend, while walking in my garden, he said he would not pretend to account for the conduct of the dog, but it was his own practice, when travelling in the southern part of our country, where the Melia Azedarach is very common, before going to bed in the summer, to get some of the leaves of the tree and put them under the sheet, and around the bed, to drive away the *fleas.* It at once struck me that my dog was not as much annoyed by fleas as other dogs who came to visit him; and on inquiring of my family, I cannot ascertain that fleas are known about my house, or yard, where we have several of those trees.

The Melia Azedarach grows readily from the seed, and soon becomes a very ornamental tree.—With a southern exposure, it thrives well as far north as the city of Washington. The bark of the root is sometimes used as a vermifuge, and the berries or fruit, occasionally put into the food of a horse, are said to be a good remedy for the bots.

Remarkable Snake Hunt.

The following extraordinary circumstance is said to have lately occurred at or near Hillsborough, in Fountain county, in the state of Indiana. For some years past this place has been infested with snakes, so numerous that people were not safe even in their beds at night. So great was the terror of the citizens, that few dared to venture out after dark.—Last fall, a person living in the neighbourhood, discovered a cave in the bank of the creek, where it was supposed they had taken up their abode for the winter. Upon the information obtaining circulation, the citizens turned out *en masse* to destroy them. They commenced by digging and removing the earth and rocks, from the mouth of the den, until they came to them. They lay in coils in the crevices of the rocks. Wooden hooks were thrust in, and frequently three or four were drawn out.—The two first days, they caught one hundred and forty-two—about one hundred were rattle snakes, and the remainder the copper-headed snake. They were in general of the largest size. Digging and killing have since continued.

MISCELLANEOUS.

(From the Philadelphia Journal of Health.

WATER *versus* ARDENT SPIRITS.

"If," says Hoffman, a celebrated German physician, "there is in nature a remedy which deserves the name of universal, it is, in my opinion, pure water. The use of it is so general, and so necessary to us all, that we can neither live, nor preserve our bodies sound and healthy without it."

Water is the natural drink of plants and animals of every description, and is the only article which can fulfil those ends for which the introduction of a liquid into the human system is demanded. Its use is equally adapted to every age and temperament,—to every season and climate. It facilitates digestion, and, by its fluidity and mildness, promotes that free and equable circulation of the blood and humours through all the vessels of the body, upon which the due performance of every animal function depends.

Hence, in physical strength, in the capability of enduring labour and fatigue, in the vigour and clearness of the intellectual powers, the individuals whose drink is confined entirely to water, far exceed those who substitute for the pure element distilled or fermented liquors.

"Their equal days
Feel not th' alternate fits of feverish mirth,
And sick dejection.
Blest with Divine immunity from ails,
Long centuries they live, their only fate
Is ripe old age, and rather sleep than death."

Errors in regard to drink constitute one of the causes to which, in a great measure, are to be attributed the increase of disease as society advances in refinement and luxury. It has been computed, that since the introduction of ardent spirits into common use, more victims have fallen by it alone, than by the sword and pestilence within the same period.

A belief is entertained by many that there are certain circumstances, however, which render the latter a preferable drink to pure water. Ardent spirits are supposed useful to preserve the system from the effects of cold and dampness.—The very contrary is the fact. Though an individual, while under the immediate excitement of the intoxicating draught, may perhaps expose himself with impunity to a degree of coldness and moisture, which would be injurious under other circumstances, yet when the stimulating effects of the liquor have passed away, his system is left in a condition far more subject to their deleterious influence than is that of the man habitually sober.

To drink water during hot weather, or in warm climates, would, it is imagined, lay the system open to the attacks of disease, while a contrary effect is ascribed to the use of ardent spirits. Experience has, however, proved that the latter augment, instead of diminishing the pernicious influence of extreme heat. "Rum," says Dr. Bell, "whether used *habitually, moderately*, or in *excessive quantities*, in the West Indies, always diminishes the strength of the body, and renders men more susceptible of disease, and unfit for any service in which vigour or activity is required." Rush very aptly remarks, that we might as well throw oil into a house, the roof of which was on fire, in order to prevent the flames from extending to its inside, as to pour ardent spirits into the stomach to lessen the effects of a hot sun upon the skin.

"I have known," says the same author, "many instances of persons who have followed the most laborious employments for many years, in the open air, and in warm and cold weather, who never drank any thing but water, and enjoyed uninterrupted good health." Dr. Mosely, who resided many years in the West Indies, confirms this remark. 'I aver," says the Doctor, "from my own knowledge and custom, as well as the custom and observations of many other people, that those who drink nothing but water, or make it their principal drink, are but little affected by the climate, and can undergo the greatest fatigue without inconvenience, and are never subject to troublesome or dangerous diseases."

The instances in which sudden death has occurred from drinking cold water during a heated condition of the body, may probably be urged in proof of the necessity of tempering the water with a portion of ardent spirits; it is to be remarked, however, that it has been found from observation, that the injurious effects of cold water, under the circumstances here referred to, occur principally, or almost exclusively, in those individuals who are habitually intemperate.

We have spoken above of water as a means of preserving health and of warding off the attacks of disease. The following fact from the page of ancient history, will show its powers as a restorative means.

Pomponius Atticus, the friend of Cicero, to whom so many works and letters of the latter are addressed, whilst labouring under that uncomfortable state of the mind produced by disease of the stomach, became disgusted with life and resolved to destroy himself. He called together his relations and friends, to communicate to them his design, and to consult with them upon the species of death he should make choice of. Agrippa, his son-in-law, not daring openly to oppose his resolution, persuaded him to destroy himself by famine; advising him, however, to make us of a little water to alleviate the sufferings which would at first result from entire abstinence. Atticus commenced this regimen, whilst he conversed with his family, philosophised with his intimate friends, and passed many days in thus preparing himself for death. This, however, did not occur; on the contrary, by restricting himself solely to water as his only nourishment, the pains of the stomach and bowels, by which he had been previously tormented, ceased; and he speedily felt himself improved in health and more tranquil in mind. Agrippa now attempted to convince him, that as the disease under which he had laboured was hippily removed, he ought to renounce his design of putting a period to his existence. Atticus confessed, at length, the justness of his son in-law's arguments: he accordingly followed his advice, and lived until a very advanced age.

Low Rate of Wages in Great Britain.

Distress of the Weavers.—Few industrious men in this country can have any correct idea from their own experience, of the narrow circumstances to which thousands of English operatives are reduced, notwithstanding their unremitting exertions to provide a support for themselves and their families. The Carlisle Patriot enters into a minute specification of facts, to show the necessities of these men, particularly the weavers. It appears from these data, that a hard working weaver, even when provided with full employment, cannot earn, on an average, more than 5s. 6d. sterling per week. "In many cases, it is true, the wife and one or two children can earn a considerable addition to this sum; but it is also true that the weaver's expenses are increased in proportion as he derives this assistance from a family." And moreover, it often happens that he has to wait eight or ten days betwixt each web (a web of four cuts occupies about three weeks,) before he can obtain a fresh supply of work. Deducting 6d. a week on this score, and 1s. 6d. a week for a dwelling room, which is the lowest possible rate, there will remain 3s. 6d. a week for food, fuel and clothing.

The editor then presents the following estimate of necessary expenses for the two former articles, which he says will give a family "but a sorry maintenance, though infinitely better than any of them enjoy."

	s.	d.
3 lbs. of bread per day is 21 lbs. at 1½d. per lb., - - - - - - -	2	7½
½ stone of oatmeal, at 2s. 6d., - - -	1	3
4 measures of potatoes, at 3½d., - -	1	2
1 pint of milk per day, 7 pints at 1 d., -	0	7
¼ ounce of tea per day, is 1¾ ounces, at 4d.	0	7
¾ lb. of sugar, - - - - - -	0	6
Soap per week, 6d. beer and treacle, 3d.	0	9
Coals and candles, per week, - - -	0	8
Salt, vegetables, water, &c., - - -	0	6
	8	7½

Here is no butcher's meat, no liquors, no butter, nothing for clothing, nothing for incidentals, and not one article of luxury. Here is no more, in fact, than is absolutely necessary to support life; and yet this exceeds the ordinary wages of a weaver, with a wife and four children, by 5s. a week! He is not enabled to procure for himself and family more than half the amount of this very scanty allowance! Less than many a *bonvivant* consumes in wine, after dinner, every day!—How true it is that one half of the world knows not how the other half lives.

[*Eng. paper.*

On the supposed Changes in the Climate of the different parts of the Earth, during the period of Human History.

Professor Schouw, of Copenhagen, has lately read a paper on this interesting subject, from which, as far as it has appeared in our language, it seems to be his opinion, that, on a general view, climates are the same now as in ancient times. The identity of the climate of Palestine, now and during antiquity, is thus beautifully made out:—"It will be convenient to begin with Palestine, the Bible being the oldest or one of the oldest of books; and, although great uncertainty exists about the determination of the plants which are mentioned in it, yet two of them do not admit of any doubt, (and these are sufficient for the determination of the climate of Palestine, in former times,) viz. the date tree and the vine. The date tree was frequent, and principally in the southernmost part of the country. Jericho was called Palmtown. The people had palm branches in their hands. Deborah's palm tree is mentioned between Rama and Bethel. Pliny mentions the palm-tree as being frequent in Judea, and principally about Jericho. Tacitus and Josephus speak likewise of woods of palm trees, as well as Strabo, Diodorus Siculus, and Theophrastus.

Among the Hebrew coins, those with date trees are by no means rare, and the tree is easily recognized as it is figured with its fruit. The vine, also, was one of the plants most cultivated in Palestine, and not merely for the grapes, but really for the preparation of wine. The feast of tho tabernacle of the Jews was a feast on account of the wine harvest. From a passage where the cultivation of the vine is mentioned, in the valley of Engeddy, it is evident that the vine not only grew in the northernmost mountainous parts of the country, but also in its southern lower part. Besides these there are other ancient testimonies in favor of the vine. This plant, indeed, sometimes occurs on the same coin with the date palm. The date tree, in order to bring its fruit to perfection, requires a mean temperature of 78° Fahr. The vine, on the other hand, cannot be cultivated to any extent if the mean temperature be above 72° Fahr. Such, then, must have been the temperature of Palestine, in former ages; and by all that is known of its present climate, the mean temperature seems to be the same now. Nor has the time of harvest undergone any change. Snow and ice, which were known, though rarely, in ancient times, are occasionally met with now and at present, as in former times. The inhabitants make use of artificial heat to warm themselves."

Elasticity, Ductility and Strength of Hammered and Rolled Iron.

The following are the principal results obtained by M. Lagerhjelm, with great care, and the use of a very complete and powerful apparatus:—1. Rolling always gives the same iron the same uniform density. 2. Hammered bars of the same iron are often of different densities, and frequently contain scales. 3. Rolling does not twist the fibre of the bar; hammering sometimes does. 4. The measure of elasticity is the same for both hammered and rolled bars; but the limit of elasticity (measured by the greatest weight which the bar can support for a given sectional surface, without any change of form,) is greater for hammered than for rolled bars, if neither have been refolded: but if they have been refolded, the limit of elasticity is increased, and becomes the same for both. 5. Rolling gives more ductility to iron than hammering. 6. Cohesion appears independent of the process employed, and is the same for both. The lengthenings and shortenings (both of which follow the same laws) are not proportional to the forces which draw or compress a bar of iron in the direction of its length. 7. Elasticity is not changed by tempering. 8. Very different forces are required to produce the same permanent change of form in a brittle and a soft iron. 9. The limit of ductility being taken as the length which a bar a foot long will increase by, from the state of unaltered elasticity until the moment of rupture, the most ductile iron experimented with was found to give for its limit of ductility 0.27 of the original length, and 0.722 of the original section. 10. The cohesion is the same for brittle or soft iron, fibrous or not fibrous; so that the absolute strength of iron appears to depend upon its ductility. 11. The volume of the metal increases as the bar is drawn apart; and the specific gravity of the iron at the broken surface is less nearly by 0.01 than that of the same iron taken from an unaltered part of the bar. 12. When the iron is extended, preparatory to its fracture, heat is evolved: the heat is greater for soft than for harsh iron. Sometimes a bright spark appears at the moment of fracture.

Bull Unic. E. x. 42.

LINEN SPINNING MACHINE.

We have to inform the public that a machine for spinning flax and hemp, is at this time constructing by an ingenious machinist in this place, and will probably be completed early the ensuing winter. The artist is an Englishman. It is not entirely an original invention, but an improvement upon the Linen Spinner which has been for many years past used in the West of England. It is calculated for 30 spindles, and will employ five persons, four of whom may be children. We have seen a hank of thread spun upon a similar machine, which for fineness and evenness, exceeds any we have ever seen come from the common spinning wheel. The introduction of this machine into the manufactories of the United States, we believe would enable them to compete as successfully with foreigners, in the linen trade, as they have in that of cotton. A full description of the machine will probably be given in a future paper; in the mean time, those who may wish to see it, are informed that it is constructing at the shop of Mr. Mark Bishop, in Church street.

[*Frederick (Md.) Citizen.*

NEW INDIGO PLANT.

Our neighbors at Manilla appear to be much elated by the discovery of what they consider a new description of Indigo Plant, among the indigenous productions of the island. And by the kind assistance of a scientific friend we are enabled to present our readers with a translation of the account in Spanish, published in a late number of the Registro Mercantil, by the Economical Society of Manilla. It is described, says the Spanish paper, as having from time immemorial been in use among the natives, for producing a beautiful blue dye, more especially in the provinces of Camarines and Albay, under the names of Payanguit and Aranguit; but had escaped scientific observation until in the year 1827 it attracted the notice of Padre Mata, Corresponding Member of the Economical Society in the Province of Samar. He subjected it to various experiments, forming it into cakes like Indigo, with which he colored several articles of cotton, silk, and linen, as well as woollens: and struck with the beauty and fixed nature of the color produced, which appeared to him in nowise inferior to Indigo, he resolved on bringing it to the notice of the Society, to whom he forwarded specimens of the cakes and of the stuffs which he had dyed.

The Society in consequence requested several of its corresponding members in those provinces, to repeat the experiments of the Padre, all of whom having concurred in a similar report, and forwarded to Manilla a considerable supply of the leaf, and cakes, and finally the living plant itself; a committee of merchants was appointed to determine, after submitting the dye to chemical analysis, whether its identity with Indigo was sufficiently ascertained to justify its being brought to market under that designation, without fraud, and whether it was likely to fetch the same price as Indigo. The merchants and chemists having decided this point affirmatively, declaring the dye to be in every respect the same as Indigo, and possessed of all the properties of that celebrated coloring substance, a committee of scientific members was finally appointed to draw up a description of the plant,

The native name of the plant is Payanguit. It is described as attaining the thickness of a man's thigh, scandent by means of attaching its extremities to the neighboring trees, full of milky sap. It grows and thrives when planted to props, and a plant of the size specified yields a greater quantity of leaves, than the most leafy plant of the Indigo Shrub; its leaves are upwards of three inches in length, and more than two in breadth. The trunk is a little rough, and with fissures, but in its native soil is smooth. The flowers are white, and some of a light yellow color. P. Mata states, that in Samar they are purple, and have scarcely a perceptible smell. In Manilla the plant flowered in the month of September. [*Canton Register*

BEARS.

Last Saturday morning, after day-light, six bears were seen crossing the road a few rods above the bridge in this village, on the road to Williamstown. The alarm was sounded, and our village warriors assembled in battle array, armed with hostile weapons, and accompanied by a hungry tribe of voracious curs. Consultations were held, and it was unanimously agreed that they should pay the forfeit of their lives for their presumption, and the valiant band started for the onset. After traversing the mountains most of the day; often mistaking huge black stumps for ferocious bears, they returned to the village, the bears having escaped the vigilance of their pursuers. *Adams Mass. American, 2d Sept.*

Our incomes should be like our shoes, if too small they will gall and pinch us; but if too large, they will cause us to stumble and to trip. But wealth, after all, is a relative thing; since he that has little and wants less, is richer than he that has much and wants more. The contentment depends not upon what we have, but upon what we would have; a *tub* was large enough for Diogenes, but a *world* was too little for Alexander.

THE FARMER.

BALTIMORE, FRIDAY, OCTOBER 23, 1829.

☞ The Trustees of the *Maryland Agricultural Society* met this day, the 9th October, at Oaklands, the residence of Thomas Oliver.

Present, seven Trustees and the Treasurer, when it was *Resolved*, That the Secretary be directed to call a meeting of the members of the Maryland Agricultural Society, to be held in Baltimore, at the office of the American Farmer, on the 5th day of November next, at 12 o'clock, for the purpose of electing officers of the Society for the ensuing year.

The Trustees will hold their next meeting at George Howard's, in the city of Baltimore, on Thursday the 5th November next.

The members of the *Maryland Agricultural Society* are requested to meet on the 5th November next, at the office of the American Farmer, at 12 o'clock, for the purpose of electing officers of the Society for the ensuing year. *By order,*

HENRY THOMPSON, Sec'ry.

October 19, 1829.

☞ SWISS CHARD.—This new and excellent vegetable continues to "improve upon acquaintance." That in the garden of Gideon B. Smith, which was planted last spring, continues to furnish abundance of fine succulent foliage, notwithstanding there has been several pretty severe frosts—it is thought that with very little trouble it may be continued through the winter. Mr. Smith has just obtained a small quantity of the seed, which he has left at the Farmer office for distribution in small parcels; the only condition he imposes is, that applicants send a few of any kind of rare or curious seeds they may possess.

☞ NEW THRESHING MACHINE.—We have been highly gratified with the operation of a new threshing machine, invented by Mr. Warren, of New York, which may be seen for a few days at Messrs. Sinclair & Moore's Agricultural Implement and Seed store. It is upon a very simple plan, and occupies not more room than a common wheat fanning machine; is not subject to get out of order; and what is a great recommendation to it, its cost will not exceed 35 or $40. With this machine one horse with proper attendants, can thresh 100 bushels of wheat a day. We have seen it operate, both by water and hand power, and have no doubt that it will perform that much work. It threshes as clean as the hand flail, and the straw is sufficiently regular for cutting, as we saw some of it cut by Sinclair & Moore's straw cutter. The agent of the patentee is now in town for the disposal of rights.

☞ AN EGG PLANT, raised this season by Richard Harwood, Esq. of Annapolis, weighed ten pounds, exclusive of the stem. We should like to have the measurement of this enormous vegetable.

LATEST FOREIGN NEWS.

By the arrival of several packets from France and England, intelligence has been received to the 19th September. The Russians had entered Adrianople, and little doubt was entertained that they had got possession of Constantinople.

On the 23d August, the Russian Commander-in-chief was marching towards Araba Bergas, on his way to Constantinople, and kept up a regular communication with the army under Gen. Roth. The fleet was daily obtaining advantages, and Admiral Greig had captured Iniada, situated on the Black Sea, whence they could reach Constantinople very easily. It was said that Vice Admiral Ricord, who was stationed before Tenedos, had received orders to assist the operations of the army, and as soon as he was advised of the arrival of General Roth at Rodosto, he was to attempt the passage of the Dardanelles. It was supposed that this would be very easy, as the Turkish fleet was shut up in the port of Bujukdere.

The Russian army entered Adrianople on the 20th of August, the Commander-in-chief at the head.—The force which took possession of the place, amounted to 56,000 men, of whom only 5000 were kept in the city; the rest were disposed of in several directions, and a corps was sent ten leagues in advance on the road to Constantinople.

Letters received from the frontiers of Servia, dated September 5th, announced that Rodosto was captured by the army under General Roth, on the 23d August. A great quantity of provisions and munitions of war were found in that place. It is the central point of the commerce of the sea of Marmora, not far distant from the old forts of the Dardanelles in Europe, to which there is a good road along the coast. The same advices mention a deputation sent by the Divan to General Diebitsch, to pray him, while the negotiations for peace were open, not to attack the capital; as the mere approach of the Russian troops might excite a popular insurrection, which would expose Constantinople to the greatest distresses. It is affirmed that General D. replied to the envoys, that it depended on the Porte to save the capital and prevent the effusion of blood; that the declaration of the Emperor at the commencement of the war was distinct and known by all the world; and that even should the Turkish Commissioners come to his head quarters to treat of peace, military operations would follow their course, until the end; and that he would not return the sword to the scabbard, until the Russian nation had received satisfaction for all the grievances it had suffered.

A Bucharest date of the 26th of August, announced that on the 18th, there had been a brisk conflict under the walls of Schumla, which terminated in the outer works of the place being carried by Gen. Krasowski. The latter would have pushed his advantages further, if the Grand Vizier had not announced to him that he had received orders to treat, and had written to Gen. Diebitsch to know at what place the plenipotentiaries should meet.

The rumour was, that the Commissioners to treat with Diebitsch, left Constantinople the 15th August; one account stated that the Reis Effendi was going in person; but no mention was made of this in advices received in England from Mr. Gordon, of the 20th; nor do we find in our Paris files, six days later than the date of this rumour, any confirmation of it.

LIVERPOOL, Sept. 16.

Our supplies of free grain during the week have been small. The Irish wheat consists chiefly of new, the quality of which is superior, though some samples have a portion of sprouted grains. There is a large import of foreign wheat, chiefly Russian, the bulk of which is placed under lock. Duties have been paid since Tuesday, upon 2,100 quarters of this article, and upon 120 quarters of barley.—It will be observed the weekly averages are much higher, and it is not improbable a temporary reduction may take place in the duties on wheat and flour.

In our last circular we noticed the unsettled state of the weather; the rains have since been to such an extent as to inundate nearly all the low lands in this district, and to cause serious apprehensions for the safety of the Potato crop. A great portion of the spring crops, Oats and Barley, are also still in field and must be suffering severely. Wheat in this district is chiefly housed, but to the northward and in Ireland there is still some quantity not secured. In the latter country the bulk of the Oats is yet uncut.

New Wheats were rather cheaper; the neighboring growers are delivering very freely. One or two thousand barrels Flour have changed hands at 26s 6d., which are the only sales reported under lock.

We reduce our quotations on old flour 1s. to 2s., and new was offering 3s. to 4s. per sack cheaper.

	Wheat.	
Average price of Grain for the week ending on the 4th Sept.	68s	3d
Aggregate average of six weeks, which regulates the duty.	66	10
Duty during present week	20	8

Extract of a letter from Havre, Sept. 20.

Since my last of the 10th, Cotton has continued in good demand, and prices have in consequence improved from one to one and a half centimes in ord. and mid. qualities.—We now quote Uplands at 80 to 96½; Louisiana 81 to 113, at which rates holders are firm. The sales during the last 10 days amount to 4000 bales, against an import of 1450 bales.

Flour, in consequence of continuance of bad weather, has somewhat improved, though business has been limited to the trade. Sup. qualities have been selling at 38 to 38½f. per barrel. Whalebone has advanced to 41 sous, at which rate a considerable quantity has been sold.

Prices Current in Boston, October 16.

Apples, best, bbl. 2.00 a 2.50. *Beans*, white, bushel 1.00 a 1.25. *Beef*, mess, bbl. 9.00 a 9.50; cargo No. 1, 8.00 a 9.00; No. 2, 7.00 a 8.00. *Butter*, inspected, No. 1, new, lb. .13 a .15. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 6.25 a 6.50; Genesee, 6.00 a 6.12; Rye, best, 3.75 a 4.00. *Grain*, Corn, bu. .60 a 62; Rye, .68 a .70; Barley .67; Oats .36 a .38. *Hogs'-Lard*, 1st sort, new, lb. .8. *Pork*, clear, bbl. 16.00 a 17.00; Navy, mess, 13.00 a 13.00; Cargo, No. 1. 12.50 a 13.00. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool*, Merino, full blood, washed, .35 a .45; do. do. unwashed, .20 a .30; do. three-fourths, washed, .30 a .33, do. half blood, .28 a .30; do. quarter, washed, .25 a .26; Native, washed .25 a .26; Pulled, Lambs', 1st sort, .36 a 37; do. 2d sort, .27 a .30; do. spinning, 1st sort, 30 a .32.

Prices Current in Philadelphia, October 20.

Bees-wax, yellow .22 a .23; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10 a 10.50, prime 9 a 9.50, cargo 7; *Butter*, No 1, .7½ a .8, No. 2, .6 a .6; *Cotton*, New Orleans .10 a .12, Upland 9. a .10, Tennessee 9. a .10, Alabama 9. a 10; *Feathers*, South. .32 a .34, West. .32 a .34; *Flax* .7½ a .8. *Flour*, sup. 5.50; fine, 5.25 a 5.37; Rye 3.62½ a 3.75; Cornmeal, hds. 11.75 a ——, bls. —— a 2.25; *Flaxseed*, cask —— a ; bu. 1.12 a 1.14; *Grain*, Wheat 1.10 a 1.12; Rye .50 a .55, Corn l. c. white, .47 a .48, l. c. yellow, .50 a .52, u. c. round, .54 a .56; Oats .24 a .30, Barley, Pa. .62 a .62½; do. East. .62 a .63; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .6 a .7½; *Oil*, linseed, .69 a 70; *Pork*, mess, 13.00 a 13.25, prime 10.50 a 12; cargo 10 50 a 11.00; *Rice*, 2.50 a 3.00; *Tobacco*, Kentucky .4 a .7, Vir. 4½ a .7; *Wool*, common washed lb. .18 a .20, half blood .25 a .—; three quarters blood .28 a .32, full blood 33 a .36; unwashed, generally 10 cents less, according to quality.

SILK WORM EGGS.

The subscriber has a large quantity of Silk Worm Eggs, of the best Italian stock, which he will dispose of on the following terms: to any person who will send him five dollars, by mail or otherwise, he will send by mail, or in any way they may direct, 10,000 eggs, with ample directions for the whole process of making silk. He has also the eggs of the *White, Orange* and *Flesh-coloured Worms*, or the Worms which produce cocoons of these colours, some of all or either of which he will send to applicants. The White Worms are in all respects equal, and in some far superior to the Italian Worms. Application should be made *immediately*, that the approaching cold weather may be availed of, for sending the eggs, as they are liable to injury from transmission in warm weather.

☞ Editors in the south and west would do the advertiser a favour, and probably subserve the interests of the silk culture, by giving the above an insertion in their papers. GIDEON B. SMITH,

Office of the American Farmer, Baltimore, Md.

PLOUGHS.—EXPLANATION.

John S. Skinner, Esq., will do us the "favour and justice," to state in explanation of a notice by Gideon Davis, in the last number of the Farmer, in which he says, that "Sinclair & Moore, in advertising my Improved Ploughs for sale by them, have done so utterly against my consent." Understanding that Gideon Davis had placed his patterns at one or more foundries, with authority to cast from them and sell to any person choosing to purchase, we accordingly ordered some castings from a foundry where the patterns *had been so placed*, and paid in addition to the usual price, the fee claimed by Davis on castings made from his patterns, which fee was retained for him by the highly respectable and honourable proprietor of the iron works from whence the castings were obtained.

How Gideon Davis can attach an impropriety in the course pursued by us, we have yet to learn. We have no disposition to invade his rights, and whenever he may think proper to make an appeal to impartial and disinterested friends, or to a court of justice, we shall test his claim to patent privileges, and submit to the decision, be it as it may. Very respectfully,

Baltimore, Oct. 22, 1829. SINCLAIR & MOORE.

FRUIT TREES, &c. GRAPE VINES AND GREEN HOUSE PLANTS.

LINNÆAN BOTANIC GARDEN AND NURSERIES, near New York, WM. PRINCE, Proprietor. The Fruit and Ornamental Trees comprised in this immense collection are now offered for sale at the reduced prices stated in the New Catalogues, and the quality of the trees surpasses any former period. Among the fruits are Peaches, Apricots and Nectarines, on *Plum Stocks.*

Grape Vines—about 100,000 are offered for sale, and the finest Wine Grapes of Burgundy, Champagne, the Rhine, and Tokay, will be supplied at $25 per hundred, and mixed sorts at $12 to $15—White or Golden Chasselas for the table, $25 per hundred.

In the Green house collection are the following very rare kinds, many of which are in no other American collection—Cheirostemon Platanoides, Astrapea, Wallichi, Banksia, 7 species, Brixia Spinosa, Madagascariensis, and Crysophylla, Nerium Tinctorium, Plumeria Rubra, Ficus Vestita, Macrophylla, Aquatica, &c. Ardisia Littoralis, Solanacea, Colorata, &c. Hibiscus Rosa Sinensis of 6 varieties; Protea, 14 fine species; Yellow tea scented and yellow Banksian Roses; New white tea scented Rose; Amaryllis Tortulliflora, Venitlora, Venosa, Superba, Punctata, Attenuata, Gigantea, Stellaris, Coccinea, Fulgida, Princeps, and about 60 other varieties, of the Cammellia, Japonica or Japan Rose, above 50 varieties including all the new and very estimable ones from Chandler and Buckinghams's London collection. The prices of these have been greatly reduced. Catalogues *gratis*, to be had of GIDEON B. SMITH, Agent.

Office of the American Farmer Baltimore.

DURHAM SHORT HORNS.

The subscriber offers for sale, extremely low, if applied for immediately, two very fine Durham Short Horn Cows, and one extraordinary 2 years old Durham Short Horn Bull. They will be delivered in Philadelphia, whence they may easily be conveyed to any part of the country. Particulars may be ascertained by addressing the subscriber, Hartsville, Bucks county, Pa.

October, 1829. JAMES COX.

ALMANAC.

1829. OCTOBER.	SUN. Rises.	SUN. Sets.	Length of days.	Moon Rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 24	6 40	5 20	10 40	3 32
Sunday,........ 25	6 41	5 19	10 38	4 28
Monday,....... 26	6 42	5 18	10 36	5 23
Tuesday,...... 27	6 43	5 17	10 34	sets
Wednesday,.. 28	6 44	5 16	10 32	6 10
Thursday,..... 29	6 46	5 14	10 28	6 49
Friday,......... 30	6 47	5 13	10 26	7 32

New Moon, 27th, 2 h. 37 m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

BALTIMORE MARKETS.—Flour is on the decline, the store price of Howard street being $5.25 a 5.37½—wagon prices uncertain, probably $5.00 a 5.12½. Grain is also declining, and we reduce our rates for wheat about five cents; old corn is in demand, and oats dull. Beef is plenty, and dull at quotations. Wood sells readily at our rates.

TOBACCO.—Maryland, ground leaf, $6.00 a 13.00—seconds, ordinary, 4.00 a 6.00—red, 4.00 a 6.00—fine red, 6.00 a 13.00, for wrapping 7.00 a 12.00—Ohio, common, 4.00 a 5.00—good red 8.00 a 13.00—fine yellow 25.00 a 30.00.—Rappahannock, 3.50 a 4.00—Kentucky, fine 4.50 a 7.00—wrapping, 4.50 a 7.00.

FLOUR—best white wheat family, $6.50 a 7.00—super. Howard st. 5.25 a 5.37½; city mills, 5.00 a —— Susquehanna, —. CORN MEAL, bbl. 2.37½—GRAIN, best red wheat, .95 a .97;—best white do. 1.05 a 1.10; ordinary to good, .90 a .95—CORN, white, .48, yel. .48 a —; new, 41—RYE, — a .50—OATS, 28. a .30—BEANS, 1.10 a 1.15—PEAS, .60 a .65—CLOVER SEED, 3.25 a 3.50—TIMOTHY, 2 a 2.50—ORCHARD GRASS, 2 a 2.50—Herd's, .75 a 1.00—Lucerne .37½ a .50 lb.—BARLEY, .45 a .50—FLAXSEED, .75—COTTON, Virg. .9½ a .10—Lou. .11 a .12—Alab. .9 a .10—Mississippi .10 a .12—North Carolina, .8 a .9—Geo. .9 a .10—WHISKEY, hhds. 1st p. .22½ a 23—in bbls. .24 a 25½—WOOL, common, unwashed, lb. .15 a .16—washed, .18 a .20—crossed, .20 a .22—three-quarter, .25 a .30—full do. .30 a .50, accord'g to qual.—HEMP, Russia, ton, $210 a —; Country, dew-rotted, 120 a 140—water-rotted, 170 a 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, —— a 5.50—Herrings, No. 1, bbl. 3.75 a 4.00; No. 2, 3 50 a 3.75—Mackerel, No. 1, 5.37½ a 5.50; No. 2, 4.75; No. 3, 3.75—BACON, hams, Balt. cured, .9 a .10; do. Eastern Shore, .12½—hog round, cured, .7 a .8—Feathers, .30 a .31—Plaster Paris, cargo price per ton, $4.00, ground, 1.25 bbl.—Prime Beef on the hoof, $4.00 a $4.50. Pine Wood, by the vessel load, from 2.25 to 2.50; by the single cord, 2.50 a 2.62½—Oak Wood, by the vessel load, 3.50 to 3.62½; by the single cord, 3.62½ to 3.75.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by JOHN D. TOY, corner of St. Paul and Market streets.

AGRICULTURE.

COMPLETE TREATISE ON HORSES.

Teaching how to judge them; to rear and manage them; how to improve their breed; to prevent or to cure the maladies and accidents to which they are liable; and to derive from them the most value under all circumstances. Useful to Breeders and Farmers, engaged in the rearing of these interesting animals; to Sportsmen, or Veterinary Surgeons; to stage Proprietors, Farriers, Horse Jockeys, &c. &c.

By an Old Officer of the French Cavalry.

(*Translated from the French for the American Farmer.*)

(Continued from p. 235.)

CHAPTER XX.

Things applied to the body of the horse.

We will examine in this chapter what are the objects which applied to the body of the horse may cause disease, and also the means to prevent them. They may be divided into two classes—living objects and those which applied to the body of the horse, as harness, shoes, &c. may prove fatal to him.

To avoid the inconvenience of insects.

Wash horses with vinegar and water, or a decoction of tobacco. Henbane and elder are recommended, but we believe vinegar to be best. Nets are used, but insects find entrance through the meshes. A cloth covering the whole body is preferable; it should be loose, that when shaken by the air in travelling the insects may be forced away. If horses are in a stable the windows should be shut, as flies are quiet when in a dark place.

The ancients regarded the shrew mouse (*musaraigne*) as the greatest enemy of horses. It is a little quadruped resembling the rat or field mouse, and has so offensive an odour that cats retire from it. Mr. Lafosse took much pains to prove that this animal is not injurious to horses—that from its exterior configuration it cannot bite them; and has made experiments to convince the incredulous, and to silence prejudice—a camp of cavalry was pitched in a place so much infested with shrew mice that they incommoded the soldiers in their tents no bad effects whatever were observed on the horses. This fact requires no commentary.

Venomous animals.

The lizard and scorpion have no bad qualities, though in general they are regarded as venomous. The only reptile injurious to animals is the viper, which differs from other serpents in bringing forth its young alive, while others are oviparous· its head is large and flat—has three kinds of teeth the grinders, the canine, and the incisors. The canine teeth should rather be considered as long excreting canals, whence the venom issues when the animal bites. The venom is secreted in a gland below the eye. These teeth can be erected by the contraction of a particular muscle when the animal wishes to bite. There are three kinds of vipers—the grey and its varieties which are red—the black, and the asp in warm climates. It differs from the adder (*couleuvre*) in this, that the scales of the head are like those of the back. The head is large and flat, its figure is *rhombic*, having the upper jaw raised and a remarkable depression of the neck. It has a collar which varies in colour. The viper has a short, thick body, and blunt tail; while that of the adder is long and tapering. The poison of the viper is yellow; it is a kind of gum insoluble in spirits of wine.

The effect of this poison has been much exaggerated—one bite of a viper cannot be fatal to a horse; it requires five or six. When an animal has been bitten by a viper, it is to be observed, that the larger the wound the less dangerous it is: but much danger is to be apprehended from small wounds. It may be observed, that the effects of poison are subordinate to different temperaments, and may be more or less dangerous according to the nature or particular disposition of the subject. The remedy is potash applied to the exterior. The viper is the only snake injurious to the horse; the others cannot injure him. Some have been seen sucking the teats of mares, who seemed so gratified with the sensation, that they refused them afterwards to their foal.

Of other noxious animals.

There is found in animals a worm which is called a leech (*sangsue;*) it sometimes introduces itself in the throat, and in the anus, and occasions considerable injury. The remedy to be used in this case is to wash with a solution of common salt. On the other hand these leeches, applied to the body of animals, have produced the most salutary effects; horses have been remarked, which, abandoned in swamps or marshes, where this insect abounds, have been cured of many disorders as by the effect of a multitude of partial bleedings. They are also employed with success for the cure of plethora in horses.

There is another disgusting animal, which, although small, is nevertheless the enemy of all others. This is the louse. Man, the horse, all quadrupeds, birds, and even fishes are not exempt from them. Horses have been seen wasting away under the effects of this vermin. There are diseases that seem to produce them, and these are not rare. In certain maladies men as well as animals are covered with them, and they are seen coming out of the skin.

Of the Remedies to be employed.

The best preparation to be used is a decoction of *staves-acre*. It is also asserted, that a fumigation in the stable, of red oxid of mercury with incense, destroys them. Sulphur taken internally and the mercurial fumigations externally, have likewise been used with advantage. Besides this vermin there are sometimes observed small worms, which give to the animals thus afflicted a most disgusting appearance, and cause insupportable itchings. The best remedy in this case, is the use of Mr. Chabert's empyreumatic oil.

CHAPTER XXI.

Of those objects that may be hurtful to the Horse by contact with his body.

Mr. Buffon has justly observed that the horse bears the badge of slavery. Man, not content with having subjected his most useful slave to the constraint of a bridle and saddle, by which he is continually harassed, has through caprice mutilated him. He must be docked, his ears clipped, and he must be castrated; finally he is doomed to have his nature incessantly balked by a most tyrannical system of treatment. There is not the least doubt, that his usefulness has been in this way much lessened.

Of the Saddle and Bridle.

The construction of the saddle and bridle, the method of shoeing, and the care which all this requires, offer very important considerations. The skin may be looked upon as the inlet of contagious diseases; through it a great number of disorders become inherent to the body of the horse. A saddle, or a bridle, not unfrequently communicates by contagion the disease of the animal to which it first belonged. Thus, by neglecting the necessary precautions to be taken to extirpate the virus attached to a saddle or bridle, we are exposed to lose a valuable animal. Such details ought never to be considered too minute for an owner; and full reliance ought never to be placed in a servant or groom. The consequences are too serious. We have already spoken of the attention requisite as regards this subject—the repetition would be superfluous.

Of the Shoeing and of its Effects.

This operation is one of great moment; we shall examine the good and bad effects which it may have upon the animal. This custom was not known to the ancients—the Roman writers make no mention of it. Most of the diseases that afflict the domesticated horses are located in their feet. Should we not ascribe this to the custom of shoeing? And if these diseases were unknown at the time that the custom did not exist, may we not conclude that hence they draw their cause and origin?

Our author states that the horses of the Emperor Nero were shod with silver, and sometimes with gold; but this was a mere luxury, for the shoe encased the whole hoof. A celebrated Neapolitan author, has consulted all the antique medals, and he remained convinced that the ancients were ignorant of this custom. It would seem that it originated in about the eleventh century. As it is, the custom has not been adopted in all countries, and has undergone many modifications with different people, some of whom have only partially adopted it. The Neapolitans, Spaniards and Germans, for instance, to this day shoe their horses only on the fore feet.

We may be allowed to ask, whether it be likely, that nature, in forming so beautiful an animal, should have bestowed upon him feet unable to support him, on long journeys? Is it not true that wild horses do without shoes? And can it be denied, that they are entirely useless to them? Finally, is it not well known that their hoofs are more or less hard according to the nature of the soil upon which they live? Let the mountain horses alone be compared with those living on marshy grounds, and the great difference in the nature of their hoofs will be at once perceived.

But the true gist of the question is, to ascertain whether, under existing circumstances, this custom can be dispensed with. Undoubtedly not. Our horses have too far degenerated, and it cannot be denied that the influence of domestication has rendered these animals incapable of resisting the hard bodies upon which they tread or lie. We must, therefore, continue to shoe; but this operation must be performed in such a way, as to produce good effects alone. The importance of this cannot be too much insisted on, if we bear in mind the great number of diseases that are occasioned by bad shoeing.

Of the first Shoeing.—Of Restiff Horses, and the reason why they are so.

The colt should be shod early, in order to accustom him to support this operation which is at first very annoying to him. Upon this first shoeing almost always depends the good or bad conformation of the foot. Care must be had to touch as lightly as possible the heel and fork, and particularly, to use only very light shoes. Most horses are restiff under this operation, and it is improper to treat them harshly in consequence.

There are horses that are very gentle in the stable, that cannot be approached when they are tied for shoeing. And indeed it cannot be expected that they will remain quiet, before a forge fire, or when an awkward smith has burnt or pricked them.

The hoofs ought to be pared very little. This is a fault which most farriers commit, that of paring too much. They usually open the heel, and remove a part of the props of the foot and of the fork, so that the horse before long has a tendency to become hoof-bound. Instead of opening his heels he closes them. The hot iron should never be applied to the sole; this is the worst of their bad customs; in doing this they frequently burn the sole to the quick; or by paring too close they arrive at the quick, by which the horse is rendered tender-footed.

Finally, and it cannot be too much insisted upon, it is not the foot that should be made to fit the shoe, but the shoe to fit the foot. By burning the sole, the foot becomes withered, and hence arise many disorders, such as the *soies*, &c.

The pernicious custom of re-paring the hoof should not be tolerated. The injury thus made is incalculable. It is as if we were to scrape off the enamel of our teeth. The portions thus removed are essentially necessary for the healthy condition of the hoof. When the injury has been done, the custom is to attempt to remedy it by applying ointments; but the immoderate use of these occasions the disease called *pied gras*. If this ointment is necessary in certain cases, it is in many more very prejudicial.

(To be continued.)

INSTANCES OF FALSE PHILOSOPHY RESPECTING AGRICULTURE.

(*Extract*—from the British Farmer's Magazine.)

Burning of clay for manure had been practised in different parts of both Scotland and England about a century ago, but seems to have been abandoned in Britain, though still practised in some parts of Ireland. And Mr. Craig in Cally, by Kirkcudbright, having travelled that kingdom "with his eyes open," as he says, and observing some people burning clay, he returned to Gallaway much pleased with the important discovery; and having at the same time found out, as he also imagined, some plant that cured the dropsy. Having communicated the discovery as to clay to two of his neighbour farmers, Mr. Boyd of Merton, and Mr. Wallace, they commenced burning clay for manure, and paraded the discovery and the *modus operandi* in the newspapers, in such flattering terms, as to excite considerable interest. They represented their discovery of burnt clay for manure as "destined to mark a new era in agriculture." They said when once the clay kiln was kindled, the wet clay, as dug from the subsoil, continued to burn without any fuel or combustible matter; that clay was easier burnt than moss; that when burning with greatest keenness, a stranger would be apt to think that the fire was extinguished; that the chief secret lay in keeping out the external air, and that 700 cart loads of clay required only the expense of ten or eleven shillings' worth of fuel, with other things equally surprising. Mr. Wallace was so much pleased with his plan of burning clay, and his success in raising turnips with the ashes, that he said he would not carry dung three miles though he obtained it gratis.

Such bold averments from respectable farmers could not fail to stimulate others, and especially those who had more theory than experience in farming, to make trial of this new species of manure. Accordingly Mr. Young of Hareburn, W. S., Mr. Aiton of Muirston, W. S., Mr. Steel, W. S., and many others, not only made trial of that species of manure, but had their names mentioned in various public prints, as proselytes to the discovery, which was expected at one time would have in a great measure superseded the use of dung for manure.

But this freak, which commenced about 1815, lasted only a very few years, and I have not seen nor heard of clay being burnt for eight or nine years past, though I have traversed every county south of the Tay within that period. I have not indeed been within twenty miles of Kirkcudbright since the clay burning commenced there, and cannot say if Mr. Craig or his friends still continue the practice, or if they raise by that means turnips of double size and weight from those he could raise when dung was used as manure, as he mentioned some years ago. But I travelled (and with open eyes too,) more than 100 miles in the Gallaway counties last harvest without perceiving the smoke of a single clay kiln.

Had these gentlemen duly attended to the qualities of burnt clay, they would have found that it could only operate as manure by communicating to the soil the small portion of soot or carbonic matter formed in burning, and which might be more or less, according to the quantity of vegetable matter in the clay, and the manner of burning, so as to preserve that matter from escaping. Or they might also have found that when clay is so completely burnt or roasted as to be formed into something resembling brick dust, which nothing but acids will again reduce to clay, such granulated matter, when mixed into a clay soil, would open the pores of the adhesive clay, and render it more friable. The soot or carbon is only a temporary manure of small account, and which could not operate more than for one crop; but the mixture of burnt clay into a stiff adhesive soil, would, so far as it went, prove a permanent improvement, tending to change the mechanical arrangement of the clay soil. For these purposes I would wish to see clay burnt, but by no means to be applied to any other soil than that of an adhesive clay. This distinction does not seem to have occurred to Mr. Craig or his converts, and they say they applied the burnt clay to the raising of turnips, which in Gallaway were not likely to be sown on a clay soil, but on one that was light, and to which that clay would do harm, by rendering it still more dry and open. If any of the advocates for burnt clay can point out how it can operate as manure otherwise than in one or other of the two ways I have mentioned, their knowledge in these matters must far exceed any thing to which I can pretend. At any rate the total abandonment of the practice shows that it was merely a freak.

Irrigation is another improvement that is too much neglected by some, and by far too highly extolled by others. The overflowing of the Nile seems to have first suggested irrigation, which has been practised in different parts of England, and its effects have been represented by Mr. Young, Mr. Wright, and others, as interesting. It has also been tried in Scotland on a small scale, and such favourable accounts have been given of its success as might have been expected would have induced all who had proper command of water to put it in practice. But though the success of irrigation has been minutely detailed by a gentleman who may well be considered as a competent judge of its effects, and though others have recommended that improvement, it has not yet been much attended to, but on the contrary it has been given up with, where it had been commenced at considerable expense, and was most likely to have turned to good account.

His Grace the Duke of Buccleugh, having seen the dashing accounts given of the success of irrigation in England, commenced that improvement on a large scale, on his estates in the counties of Roxburgh, Selkirk and Dumfries. He formed upwards of thirty meadows on the banks of the Esk, the Ewes, the Teviot, the Etterick, and the Yarrow, which cost his Grace between two and three thousand pounds of expense in forming. And the Highland Society, ever attentive to improvements, sent the Reverend Dr. Singers to make repeated surveys of these meadows, and his report, which was published in the third volume of the society's essays, was creditable to the reporter, and seemed to place that improvement in a favourable point of view. From the flattering accounts given of irrigation in England, and so far corroborated by Dr. Singers, I was induced to recommend the practice in my survey of Ayrshire. But now that I have been able to pay greater attention to the subject, and seen most of the Duke of Buccleugh's irrigated meadows abandoned, I have become a good deal sceptical on the subject.

I am satisfied that wherever water can be set upon any piece of bare, sandy, gravelly, or rocky soil, during the winter and spring, it will very much enrich such land, especially if the water conveys and deposites earthly matter or sediment. On that account I would wish to see every proprietor and occupier of land, having rills or streams at their command, not only to direct them over such hill, pasture, moss, or other waste land, as local circumstances will permit, but to take every opportunity in their power to render such water muddy, by throwing into the stream such earth as may be come at, so as it may be deposited on the moss or waste ground, over which the water can be made to flow.

If that were done in every situation over which the water could be made to pass, the land so enriched, not by the water, but by the sediment it would deposite, would soon become ten, perhaps fifty times more valuable, even for pasture, or for being cropped, where that was thought expedient.

Thus far there can be no doubt of the propriety of irrigation. But how far what is termed scientific irrigation can be rendered efficient beyond the proportion of sediment deposited I now entertain strong doubts. Indeed I am convinced that the only benefit to be derived from irrigation is merely what sediment the water leaves on the ground over which it flows. It clearly appears to me, that setting the waters on the meadows for three weeks or so in the beginning of winter, and as long in the month of March, is altogether fanciful, further than in so far as it deposites some enriching sediment, and in that case the water need not be kept over the meadow more than a day or two at a time, till the muddy water became clear. And the oftener that this is repeated during winter or spring, the more will the meadow be enriched.

When water is kept on either a clay loam or moss soil more than a day or so, till it can make its deposites, it sours and injures the soil, and tends to chill and destroy the richest plants, and to raise up in their stead the marsh plants and aquatics.

If the waters of the Thames immediately below London, where human excrement generally covers much of the surface of the river, and all the filth of that overgrown city is mixed with the water; or if the strand, called the Tumble, running eastward from Edinburg; or even the Mollendiner burn of Glasgow could be set upon land and detained till they deposited the riches they contain, they would fertilize large tracts of land. But to talk of pure rock water, or clear mountain rills, even though a lime post or two should occur on their banks, enriching land is purely fanciful. Even where a calcareous or petrifying quality can be traced in some springs near such streams, all the effect these could produce would be only as a drop in the bucket. But where any river overflows the holms on its banks, and deposites the muddy matter with which it is mixed, it greatly enriches such land.

Paring and burning is another of the errors committed in farming, which cannot be too much reprobated. It has not indeed been recently introduced, nor is it the freak of an individual or two, but one that has long been practised in England, and by far too much recommended, and even introduced into Scotland. And as one good crop is generally reaped after burning tenants who have only a temporary interest in the soil, too often seek present relief from that operation, disregarding the injury it may afterwards do to the land, even when they know and admit that it is injurious to the soil in future.

Burning the vegetable matter in the soil has always appeared to me to be nearly as absurd as it would be to burn straw in place of rotting it into dung, or to burn the dung in order that its ashes might act more powerfully than the dung itself, so far as they could be made to go. The Earl of Dundonald, who is certainly a good judge in such matters, has stated, that when moss or other vegetable matter is consumed by fire, nineteen out of twenty parts of its substance is dissipated in the state of gas. It must, therefore, be extreme folly to throw away so large a proportion of the vegetable matter in any soil whatever; and it would be much better economy to preserve that matter which is the best food of plants, and to bring it into action by the application of calcareous or other stimulating manures.

But even the loss of the vegetable matter in the soil when burnt is not the only injury sustained by that operation. For when any open light soil is subjected to this fiery trial, the burning not only dissipates the vegetable matter, but it adds to the greatest defect of that species of soil, by making it still more light, dry and open. Even in clay land, where burning part of the soil is an improvement, it is not by burning the herbage, but the subsoil, that when mixed into the soil opens the pores of the stubborn clay, and improves its mechanical arrangement. When part of moss is burnt, one good crop only is obtained; but from the cinders formed in coke, such as the weather never can again reduce, the moss becomes by far too light, open and dry, for ever afterwards yielding such crops as when fire has never been applied; and the chief herbage, after such burning, is a small plant of a red colour, rising as thick as the hairs of a man's beard, called the *bryum purpurium*, which grows every where on stone dykes and other buildings, or on rubbish of old buildings.

Paring and burning, however much it has been recommended by men of high pretensions to agricultural knowledge, is and will ever be reprobated by all who have paid due attention to the subject.

If your room permitted, I would merely say that though a certain portion of flour may be extracted from potatoes, that can only be done by throwing away the mucilage and fibrous parts of that root, which contain far more food to man or beast, than is contained in the farinaceous part of the plant. And as to the foolish clamour raised by Mr. Cobbett against the use of potatoes as a species of crop and of food, it is so superlatively absurd, even for Cobbett to have written and published, that it can only excite laughter and contempt.

It was stated in the general report for Scotland, published in the name of the Board of Agriculture, that the average yearly profit of the Ayrshire dairy cows, after deducting feeding, amounted only to one pound two shillings. How the Board suffered themselves and the public to be so far imposed on in that matter is not for me to say. But when it is considered that no well-informed farmer would keep a cow that did not yield her own weight, or the value of the cow every year in full milk cheese—that in valuing farms it is usual to estimate the rent to be paid for each milch cow at from six to nine pounds, according to the quality of the land—and that when a farmer lets out the milk of his cows to a person called a bower, who gets the milk, but performs all the labour about the cows, the rent paid is, besides the dung, from £10 to £17, according to the quality of the pasture and local situation.—I say when these well known facts are merely repeated it is quite unnecessary to say one word more to refute the error into which the Board has been drawn by a misplaced confidence.

The plan of supplying large cities with milk, by erecting elegant buildings, with costly state-rooms for the cows, steam engines, and other expensive apparatus, was far from being the best mode of furnishing that valuable article to the inhabitants. The most proper method seems to be for a few such farmers, as may have been bred in the dairy districts, and who have been turned out, or given up their farms, to commence keeping a few cows in some large city, and gradually to increase the number to what their stock and circumstances can command, but never exceeding from fifteen to twenty cows, to be kept by one man at once. A man so bred to the dairy management, must be a good judge of the qualities and prices of milch cows, and of every species of their food, and how they should be treated. His wife must be well qualified to feed the cows and to manage them and their milk. An establishment of that extent would not be too great for them to conduct, and the whole concern being their own, they would more readily attend to it than servants can be expected to do. A man of ordinary caution, acting for his own behoof, is more likely to make good bargains, and at far less expense, than can be expected from a dashing overseer who acts for others; who is not himself conversant in dairy husbandry, but has been by some of his friends put into that office for a piece of bread. In an institution of the moderate extent I have suggested, the owner's wife and daughters, if he had any, would more likely do justice to the feeding, milking and management of the cows and their milk, than could be expected from "a bevy" of servants who are under partial control, and have not themselves the least interest in the matter.

I stated these opinions to some of those who consulted me on the subject in 1824, when the rage for joint stock companies was irresistible. I am still of the same opinion, and confident that dairy systems on a large scale must either draw a higher price for the milk they sell, than smaller and cautious dealers could sell it for, or that the concern must be injured.

WILLIAM AITON.

Hamilton, February 18, 1829.

TOPPING AND PULLING FODDER FROM INDIAN CORN.

"Mr. Bordley says he has stripped the blades, and cut off the tops, when the corn was nearly soft enough for roasting ears, and that no difference was observed between this and the rest." If the gentleman had measured the product, he would have seen a marked difference. It was discovered early in August, 1810, that proper grasses for soiling my cattle would soon be very deficient; and on the 20th of that month, one row of corn in a field of 13 acres, was topped to ascertain how the plant would bear early cutting. It was thought that it had received no injury. On the 31st of the same month I recommenced feeding the cattle with the tops cut daily as wanted. These lasted until the 18th September. After this the blades were stripped, commencing where the topping began. They fed the cattle until the 5th of October. In the process of topping and blading, one row was left entire, standing between the row which had been topped on the 20th of August, and another row that was topped on the 2d September. These three rows were cut off by the roots on the 2d of October, and hauled in and set up separately, under my own inspection. They were husked and measured on the 8th of November. Produce of the row that had not been topped and stripped, nine bushels and five eighths of corn in the ear.

One of the rows which had been topped and stripped measured seven bushels and six eighths; and the other topped and stripped row measured seven bushels and three eighths of corn in the ear. Thus it clearly appears that mutilating the corn plant before its fruit is perfected, is a very injurious practice. The injury done to my crop by this management was clearly seen some time before the three experimental rows were cut off. Throughout the whole field the husks were generally dry and open, except on the row which had not been topped and stripped. On this they still retained a greenish hue, and were close set to the ear, when the plants were cut off by the roots.

As several writers on agriculture had asserted that the tops of potatoes might be cut and given to the cattle without injury to the crop, I cut off the tops from a row running through the middle of a very luxuriant patch. Care was taken to cut them in that way which was supposed least likely to prove injurious to the future growth of the plants. The debilitated appearance of the second growth of the tops determined me not to risk a second cutting of them. When the crop was gathered, the roots in the row that had been cut did not seem to be more than half as large as those in the rest of the patch. In fact I have never seen any advantage arise either from carefully trimming, or ruggedly mutilating annual plants; on the contrary much injury certainly follows." So far this intelligent and practical farmer.

[*Lorain, chap. xiii. p.* 159.

A DIALOGUE.

MR. SKINNER: *October* 14, 1829.

My farm is one of the best in the county. One of my neighbours, of a second best class and more in debt than myself, called to take a social dinner and glass; during the time we were thus agreeably employed, we discussed the usual topicks; Internal Improvement, and the facilities of moving, brought us on the never ending point of discussion, was it better to improve our farms or move? But I will give you the end of our dialogue.

Myself. In short, during the excursions which I usually take, for the real or supposed benefit of my health, I sometimes see and always admire a neat farm house surrounded by well cultivated fields, buildings, and fences, judiciously arranged and in good repair, and cattle of every kind in good condition.

On such occasions I am tempted to call and see the interior and generally find a hearty welcome. The husband, the wife, the children, each in their place, knowing and doing their respective duties, enjoying happiness and comfort as far perhaps as human nature will permit, with a spare room or two for a relative, a friend, or an occasional visiter. Where then, I am tempted to exclaim, is the necessity of moving to the new and fertile lands of the West? Surely we have plenty of land, plenty of the good things of this life, if we apply a little industry, a little good management, and a little self denial in the use of the good things which are so bountifully provided for us.

But when necessity compels me to take refuge in an ill conditioned house, surrounded by worn out fields, fences unfit to guard the scanty crop from the half starved cattle. The husband burdened by debt, flying to the bottle for relief, the wife forced to encroach on the station of the husband, the children clamorous for indulgence, the servants idle and wasteful, who would not in such case seek a change? Removal from the associates of ruin, might break the chain of mismanagement, and a happy result might ensue. At all events, necessity, that severe but often just master, might force exertion, and if greater ease ensued, and old habits returned, so much of the weary load of life is put off, and the fertile region they visit is in its turn visited by the same destroying hand which has cursed the land they have been compelled to leave.

Neighbour. Stop, stop, for mercy's sake—you are on your hobby horse and will assuredly ride me down; tell me at once, what you would have me do, and how shall I produce such a desirable reform!

Myself. Do! Why this you *know* is the day of Antis, and societies of all kinds; form ANTI-GOING-TO-THE-WESTERN-COUNTRY societies.

Here my wife, to whom, if the truth must be spoken, I am much indebted that my affairs and farm are so much better than my neighbours, hearing of societies came into the room a little excited.

Wife. Societies, indeed:—You remember the day you went to the Agricultural Society of * * * * when the fox-hunters took down your fences, laid open your farm to the half starved cattle of the neighbouring town, wasting and destroying half your crop. And does your companion forget the broken limb he got in coming home drunk, when he had been attending a meeting to form a temperance society?

Myself. But, my dear, you have not heard my plan; I'll take a patent out for it. It is no less than that every well regulated farm house shall have its society. The husband president, the wife vice-president, the children secretaries and committees—the discussions shall be held during the long winter evenings. Our neighbours shall be honorary members; the constitution, the American Farmer. In its excellent pages, we shall have ample choice of subjects, and in due time, by selecting with judgment and executing with caution and skill, we shall transform our barren wilderness into fertile fields.

Wife. The American Farmer recommends industry and sobriety; you had better begin by breaking up you present meeting, and each look to your own business.—This was a kind of choaking damper, so we drank off our glasses and adjourned.

Yours, truly, Agrestis.

——— *County, Maryland.*

(From the New England Farmer.)

FOXITE POTATOES.

Mr. Editor,—If the valuable variety of the potato called *Foxite*, is not cultivated by the farmers in your vicinity, I will take the liberty to recommend them as deserving their attention. In the summer of 1826 I was favored with a visit from my respected friend *Dr. James Mease*, of Philadelphia, Vice President of the Pennsylvania Agricultural Society. He observed to me that he had not in New England met with any potatoes which could compare with the Foxites, and that they were in Pennsylvania valued as superior to all others. In April following he kindly forwarded to me about half a bushel, which I planted, and the produce answered my expectations. In the Spring of 1828 I furnished *Joseph Bartlett*, Esq. with seed, and he raised about twenty bushels, but owing to a thin soil a considerable proportion were of a small size. The present season the same gentleman has raised about eighty bushels and they are of a good size. He used plaster of Paris in the hills, but no manure. I believe the produce is not so abundant as from some other varietiea, and they require a strong soil. Dr. *Mease* in his letter to me says, "I hope the difference between the climate of the Old Colony and Pennsylvania will not cause any difference in the quality of the potatoes, which here, are finer than any I ever ate, foreign or domestic. But justice must be done in the boiling: they must not be allowed to remain a minute in the water after they are done, the water must be poured off and the potatoes should remain a few minutes to evaporate all the moisture; they will be then dry and floury, and the flavour fine."

Some difficulty is found in boiling them to prevent their crumbling in pieces; but when brought on the table they are of a pure white color, floury and excellent in flavour; and a valuable property in them is, that they retain all their excellent qualities till May or June, though I believe it best, as with all winter vegetables, to cover them in sand. I shall in a few days forward some of the Foxites to Mr. *Russell's* seed store, that they may have a trial among your connoisseurs.

I am, respectfully, yours,
James Thatcher.

Plymouth, October, 19, 1829.

HORTICULTURE.

A Visit to Parmentier's Nursery and Botanic Garden.

The brief notice I took of the establishment of Mr. Parmentier, in the 31st No. of the Farmer, was drawn up in such a hurry, that I propose continuing it from memoranda which I brought with me; and I am the more impelled to this further notice by the fact, that the public attention has not been attracted to this establishment in any thing like a proportion to its merits. I confess that as Mr. P. has said but little about it in the public prints, I was surprised to find such an extensive collection of the larger trees, especially fruit trees, and the whole in a state of perfect cleanliness and regularity.

As Mr. P. wishes to introduce a taste for picturesque gardening, he has appropriated a certain portion of his own garden to that purpose, and as a specimen of what his nurseries produce, wherein borders and parterres, fruit bearing and ornamental trees beautifully grouped together, unite the useful with the agreeable. I noticed in my former paper the dwarf apple trees, not more than three feet high, disposed in rows and bearing fruit, though it is only the second year since they were planted out. I tasted the russetin of Montbran, which was very good, and brought a specimen of it home with me.

The different varieties of Robinia gave me great pleasure; the pyramidal oak, by its contrast with the weeping willow, produces a fine effect; the silver poplar of Europe, the Japan aylanthus, resembling in its form the palm tree, of very rapid growth; the annular willow, deriving its name from its leaves being curled in a ring form, is a hybrid formed from a union of the osier with the weeping willow, and we are indebted for it to the Netherlands, where the male tree of this willow exists, we, in this country, having the female only. A great profusion of monthly roses of different varieties, cultivated in the open air, without any kind of shelter. Amongst them I remarked the Aca rose of Florence, of a red color, and having the odour of vanilla. The belle of Monga the splendid, the blood, the belle of Plaisance, &c. His rustic arbour and rustic seats, disposed throughout the garden with great propriety, produce an agreeable effect, by their natural appearance and their perfect harmony with the scenery around them.

I paid particular attention to the vines and tasted some of the grapes; amongst the rest the golden chasselas, very good and sugary. The Tokay of Hungary, a delicious grape, and the meslier grape of Champagne, a very productive and hardy kind, and which has a very thin skin, and a great deal of juice without pulp. It has been cultivated now for more than four years without losing any of its qualities, and is slightly acidulous. Also running strawberries, both flowering and fruit bearing, red and white. His collection of Dahlias was in flower; one of them of a fiery crimson colour and very double, was dedicated in Europe to the Chevalier Parmentier, his elder brother. Mr. Poiteau, one of the editors of the Bon Jardinier, (complete gardener) says in the 71st page of that work, speaking of the collection of plants of his brother, which he saw on a journey he made to the Netherlands: "At Enghien, the amateur has only two gardens to examine in this little town; that of the Chevalier Parmentier, burgomaster, and that of the Duke of Arenberg. Mr. Parmentier has a very just claim to the reputation he has acquired throughout Europe as a skilful botanical cultivator. His establishment is without dispute, the most extensive manufactory, and the richest collection of plants that is to be found upon the continent. The personal merit of the proprietor, the instruction he affords, and the office of burgomaster which he fills, give a lustre to his establishment, and commands the confidence of the consumer. I never before saw so large a collection of plants from every region of the globe, assembled together in one spot, and on no former occasion have I ever found so many that were before unknown to me. The correspondence of Mr. Parmentier must be of immense extent, to furnish so great a variety of vegetable productions. The following are some that interested me the most amongst the number of those that I had never seen before. The "magnolia odoratisisima," a shrub of moderate height, which flowers four or five feet from the ground; the flower, which is white, is large, and has a very agreeable perfume. It already produces seed. The "gloxima scuti," the "azalea indica lutea," "cactus napoleonis," "geranium arboreum," "mimubus rivularis," "lilium longiflorum," very different from the japan lily, and a great number of liliaceous, and other plants unknown in Paris.

Mr. Parmentier has also a very extensive nursery, in which he cultivates ornamental trees and plants, as well as fruit trees. He has lately obtained a very fine "Bigarreau," which he calls the "B. Napoleon," and a pear which he calls "the Fortunate." It is of large size, has a rich, buttery and delicious meat, and may be preserved till July. On account of these qualities, it is considered by Mr. P. as the most valuable pear that grows.

The green-house department is kept in good order; I remarked the double nasturtium, lately introduced into this country. Its flower resembles the double yellow rose: also, different new kinds of roses. Amongst the rest, the nut-rose having a yellow heart, the variegated "campanula," a new plant, flowering for the first time in America. And, what is worthy of remark, this establishment has not been in operation more than five years, and is placed in a soil formerly so stony as would appear to defy cultivation; a quarter of an acre still remaining as a specimen of the original sterility of the soil.

A Baltimorean.

Growth of the Vine on the Alleganies.

J. S. Skinner, Esq. *Somerset, Pa. Sept.* 21, 1829.

Sir,—I wish to communicate, through the medium of your respectable paper, to the German emigrants who have been engaged in Europe in the cultivation of the vine, that in May last I commenced the planting of a vineyard on the Laurel hill, in this county, about ten miles west of this town, and have now one acre in vines, which appear to thrive exceedingly well. I can venture now to assert from experience, that the vine will do well on that hill; the only danger I apprehended was from the early frosts in the fall. We have now had three pretty severe frosts, one on the 4th, one on the 18th, and one on the 19th instant, which destroyed the buckwheat not then ripe, both east and west of this hill—and that on the hill is yet in full vigor of ripening, and the vines are perfectly fresh and green. There has not been any frost whatever there as yet. The summit of this hill, or mountain, as it may be called, is the division line between this county and Westmoreland. It is the best timbered mountain in this state, consisting of the most useful kinds, for building, fencing and fuel; and the soil is generally of a superior quality, presenting many very favourable sites for vineyards, with southern aspects. I have engaged a German with his family, from Baden, who tends the vineyard, and he has no doubt of their succeeding well. Any industrious family, with a small sum of money, having experience in this business, would do well here I have no doubt. Every description of vegetables thrive here remarkably well; and there are no potatoes in America or Ireland superior to those raised on this hill.

I am, very respectfully,
Your obd't servant,
Abraham Morrison.

[If editors of papers in the Atlantic cities would copy the above, they would do a service to worthy "strangers within our gates," and assuredly promote a public interest by promoting the substitution of wine for still-burned whiskey.]

(From the New England Farmer.)

SOY BEAN.

As this plant thrives well in this climate, and perfects its seeds, it may not, perhaps, be amiss to say something of its use and history. It is an annual Bean, not much unlike those we commonly cultivate, with an erect stem, shewing a slight tendency to twine at the summit only; the flowers are very small for the germs, and reddish in axillary clusters; the legumes are pendulous, hispid with brown bristly hairs, with which the whole plant is more or less clothed—these pods contain two or three beans when mature, almost of a chocolate brown, and somewhat smaller than any generally cultivated in this country. It belongs to the genus *Dolichos* (*D. Soja*,) which also affords us several other edible legumes. It is said to be indigenous to India and Japan, where, as well as in China, and Cochin-China, it is very generally cultivated for food, and probably preferred for its great productiveness. A single bean produced, and perfectly ripened with us at the Botanic Garden, 182 pods, with two to three beans in each. Whether in this country, where so many fine legumes are cultivated, it might be esteemed for food, is doubtful; the experiment may easily be made. But its principal recommendation at present is only as a luxury, affording the well known sauce called *Soy*, which at this time is only prepared in China and Japan—that of the latter country being usually preferred. The mode of obtaining this sauce is said to be as follows:

After the seeds are boiled until they become soft, they are mixed with an equal weight of wheat or barley flour coarsely ground. This mixture is fermented, and a certain proportion of salt and water being added, the whole is allowed to stand for two or three months, care being taken to stir it every day; and by the end of that time it is ready for use. Its composition then appears to be perfectly harmless, which cannot be said of many other sauces; and among the Asiatics it is considered beneficial in promoting an appetite.

Yours, respectfully,

THOMAS NUTTALL.

Botanic Garden, Cambridge, Oct. 14, 1829.

(From the New England Farmer.)

CHERRY STOCKS.

Mr. EDITOR.—Your correspondent "D." in your last number, presents for information three queries respecting fruit trees;—to the second only, I shall presume to reply. "Does the common red cherry of New England furnish good stocks on which to engraft the different varieties of the cherry, and if so, should they be used as standards, or grafted near the root?"

Having made several attempts to introduce the famous Elkhorn cherry, the trees which I procured from Mr. PRINCE's Botanic Garden, although remarkably thrifty, almost all perished. In August, 1827, I procured from the same source a quantity of buds. It was eleven days after they were cut before they reached me. I immediately inserted them into stocks of the common red cherry in my garden. They almost without exception succeeded to my wish, and the next season they pushed forward to the length of about five feet. The last spring they were taken up and transplanted, yet they blossomed, and one of them formed fruit, which, however, fell off before attaining to their full size. I inserted the buds in the branches, about 4½ feet from the ground, and they are forming handsome, straight trees. I have no doubt but the common red cherry of New England will furnish excellent stocks for any foreign cherry.

J. T.

Plymouth, Oct. 14, 1829.

INTERNAL IMPROVEMENT.

(From the Liverpool Mercantile Advertiser, of August 3, 1829.)

WINAN'S PATENT CARRIAGE.

Ross Winans, esq. has invented a carriage very simple in its construction, and likely to be of immense value to the carrying trade of this country. He has obtained a patent for the United Kingdom, as well as in the United States, where it has been in successful operation by the Baltimore and Ohio Rail-road company, since the month of January last. The road wheels are connected by an axle-tree which passes through them a few inches, the projection forming a gudgeon on which a friction or secondary wheel is hung or suspended. The road wheels have been made of cast metal, 20 inches to 2 feet 6 inches high, and the secondary wheels 8 to 12 inches in diameter. The latter wheels are also of cast metal, with the rim projecting on one side about 2 inches, to hang on the large gudgeon; on or against the inner periphery of this projection, the gudgeon of the road wheel works. The small wheels have their own axletree on which they revolve. The frame of the carriage is brought to the underside of the small axletrees, to which they are secured by suitable pieces of cast iron passing over their ends, which form the small gudgeons, and bolted down to the frame. In the lower side of these pieces of cast iron, there is a groove left for the small axletrees to work in; then when the carriage is drawn forward by the frame attached, as before described, to the axletrees of the small wheels, it brings the road wheels also forward, performing a rolling motion in place of a rubbing one, on the inner periphery of the small wheel, which easily turns, thereby transferring the rubbing friction to the small gudgeons. It is therefore clear that for one evolution of the small or secondary wheel and gudgeons, the large wheel must make many evolutions forward on the road. It is in this the great value of the invention consists, and in the secondary wheels being self adjusting. The carriage is thus described in its original state, but the patentee has made some great improvements by running the secondary wheel in a box of thin cast metal; which holds a quantity of oil, by which means every rolling and rubbing gudgeon is completely oiled, and the oil prevented from escaping, and protected from dust. The first experiment made on this carriage was on a small scale, when half a pound hung over a pulley, drew forward 5 cwt. equal to 2 lbs. to the ton, which would give at least 70 to 80 tons for the load of one horse; but in practice upon a large scale it may not be found so much. The experiment made on a level part of the Liverpool rail road gives this result; 24 lbs. over a pulley kept 5 tons in motion at 2½ miles an hour. This carriage was considered capable of improvements in its construction, and another of more perfect workmanship was made; with it 16 lbs. over a pulley kept 3½ tons in motion at 3½ miles an hour, and two men by a winch and strap, (they riding on the carriage) with 13 passengers, brought it into a velocity of 12 miles an hour. The under carriage weighed 14 cwt. but for passengers it might be made of half the weight —indeed with this extraordinary improvement in carriages, we may expect to see two men in two hours take twelve or fourteen passengers from Liverpool to Manchester, a distance by the rail road, of 32 miles. It was very evident the winch with which the last experiment was made was too slight, and the strap slipped so much that a great deal of the power of the men was lost. We congratulate the public and the proprietors of rail roads on this discovery.

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We think that no small degree of credit is due to the president and directors of the Baltimore and Ohio Rail-road company for the zeal and liberality with which they ascertained and encouraged this great invention; and they have thereby obtained a right for themselves to use it, and all its future improvements.

It seems demonstrated, to use the language of the Baltimore Gazette, "*that the friction and atmospheric resistance combined, upon these wagons on a horizontal rail road, are actually less than the resistance by water upon a boat in a canal even at slow speed.* The Baltimore and Ohio rail-road is so located as to encounter but one summit between this city and the Potomac, and having once gained the valley of that river, it may thence be conducted by one gradual slope, no where exceeding four or five feet to the mile, to the coal districts in Alleghany county; the road will therefore be in a condition to realize the full benefit of Mr. Winan's invention. This most important advantage would have justified the cutting down of the ridges and gaining a level between this city and the Patapsco, even had the expense been double what it has been." [*Niles' Register.*

LADIES' DEPARTMENT.

(From a Liverpool paper.)

CHILDHOOD AND HIS VISITERS.

Once on a time, when sunny May,
  Was kissing at the April showers,
I saw fair Childhood hard at play,
  Upon a bank of blushing flowers:
Happy,—he knew not whence or how;
  And smiling,—who could choose but love him?
For not more glad than Childhood's brow,
  Was the blue heaven that breathed above him.

Old Time in most appalling wrath,
  That valley's green repose invaded;
The brooks grew dry upon his path,
  The birds were mute, the lillies faded,
But Time so swiftly winged his flight
  In haste a Grecian tomb to batter,
That Childhood watched his paper kite.
  And knew just nothing of the matter.

With curling lip and glancing eye,
  Guilt gazed on the scene a minute,
But Childhood's glance of purity,
  Had such a holy spell within it,
That the dark demon to the air
  Spread forth again his baffled pinion,
And hid his envy and despair,
  Self-tortured, in his dominion.

Then stepped a gloomy phantom up,
  Pale, cypress-crowned, night's awful daughter,
And proffered him a fearful cup,
  Full to the brim of bitter water;
Poor Childhood bade her tell her name,
  And when the beldame muttered "Sorrow,"
He said,—"Don't interrupt my game,
  I'll taste it, if I must, to-morrow."

The Muse of Pindus thither came,
  And wooed him with the softest numbers
That ever scattered wealth and fame
  Upon a youthful poet's slumbers;
Though sweet the music of the lay,
  To Childhood it was all a riddle,
And "Oh," he cried, 'do send away
  That noisy woman with the fiddle."

Then Wisdom stole his hat and ball,
  And taught him, with most sage endeavor,
Why bubbles rise, and acorns fall,
  And why no toy may last forever:
She talked of all the wondrous laws
  Which Nature's open book discloses,
And Childhood, ere she made a pause,
  Was fast asleep among the roses.

Sleep on, sleep on!—Oh! Manhood's dreams
  Are all of earthly pain, or pleasure,
Of Glory's toils, Ambition's schemes,
  Of cherished love, or hoarded treasure:
But to the couch where Childhood lies
  A more delicious trance is given,
Lit up by rays from Seraph eyes,
  And glimpses of remembered heaven!

"The pearls and precious stones, the silk and gold, with which a coquette so studiously bedecks herself, are as transparent varnish, which makes all her defects the more apparent." [*Chinese Maxim*

SPORTING OLIO.

(From the American Turf Register and Sporting Magazine, No. 2.)

FEATS OF SPORTSMANSHIP.

Capt. S. of the U. S. Army, when a boy, shot at a fox while in the act of running from him, and with a single rifle ball broke every one of its legs.

The same officer has been known to load and fire a common rifle, (U. S. Yauger) five times in a minute, and hit a target of the size of a dollar, and at the distance of fifty yards, every time with a single ball.

He shoots on the wing with almost unerring certainty with single ball, when the object of his aim is not beyond the range of his rifle.

One evening at my camp in the wilderness, wishing to discharge and re-load my pistols, (common horseman's with brass barrels,) I handed one of them to Capt. S. and requested him to give me an example of his skill in shooting.—He immediately took the pistol,—cocked it,—picked up an old shoe which chanced to lie near him, hurled it into the air,—turned suddenly upon his heel and fired,—on examining the shoe, the ball had passed through and very near the centre of it.

He has repeatedly taken two potatoes or small billets of wood,—tossed them successively into the air; and when in the act of crossing each other's track, or in range with each other as viewed from his eye, he has, with a good pistol, passed a ball through both of them.

He will permit any one standing at the distance of about fifteen paces from him, to take a billet of wood, a stone or potato, and cast it into the air, in such manner that the object will fall at an equal distance from the person that projects it, and with a pistol loaded with a single ball, will hit the projectile before it strikes the ground, the projector being allowed to practise any feints to beguile the attention of the marksman.

It is worthy of particular remark, that Capt. S. almost entirely lost the use of his right arm, by a wound in the elbow, which had the effect in a great measure to paralyze the arm, but that in a short time afterwards, he was able to display equal skill and adroitness with the use of his left hand.

The foregoing interesting exploits were communicated by a personal acquaintance of Capt. S. also an officer of high repute in the army, and are a few only among the variety of feats performed by that gentleman.

MISCELLANEOUS.

To Thomas Jefferson Randolph.

Washington, Nov. 24, 1808.

My dear Jefferson,

* * * * * * * *

Your situation, thrown at such a distance from us and alone, cannot but give us all great anxieties for you. As much has been secured for you, by your particular position and the acquaintance to which you have been recommended, as could be done towards shielding you from the dangers which sorround you. But thrown on a wide world, among entire strangers, without a friend or guardian to advise, so young too, and with so little experience of mankind, your dangers are great, and still your safety must rest on yourself. A determination never to do what is wrong, prudence and good humor, will go far towards securing to you the estimation of the world. When I recollect that at fourteen years of age, the whole care and direction of myself was thrown on myself entirely, without a relation or friend qualified to advise or guide me, and recollect the various sorts of bad company with which I associated from time to time, I am astonished I did not turn off with some of them, and become as worthless to society as they were. I had the good fortune to become acquainted very early with some characters of very high standing, and to feel the incessant wish that I could ever become what they were. Under temptation and difficulties, I would ask myself what would Dr. Small, Mr. Wythe, Peyton Randolph, do in this situation? What course in it will insure me their approbation? I am certain that this mode of deciding on my conduct, tended more to its correctness than any reasoning powers I possessed. Knowing the even and dignified line they pursued, I could never doubt for a moment which of two courses would be in character for them. Whereas, seeking the same object through a process of moral reasoning, and with the jaundiced eye of youth, I should often have erred. From the circumstances of my position, I was often thrown into the society of horse racers, card players, fox hunters, scientific and professional men, and of dignified men; and many a time have I asked myself in the enthusiastic moment of the death of a fox, the victory of a favorite horse, the issue of a question eloquently argued at the bar, or in the great council of the nation, well which of these kinds of reputation should I prefer? That of a horse jockey? a fox hunter? an orator or an honest advocate of my country's rights? Be assured my dear Jefferson, that these little returns into ourselves, this self-catechising habit, is not trifling nor useless, but leads to the prudent selection and steady pursuit of what is right.

I have mentioned good humor as one of the preservatives of our peace and tranquillity. It is among the most effectual, and its effect is so well imitated and aided, artificially, by politeness, that this also becomes an acquisition of first rate value. In truth, politeness is artificial good humour, it covers the natural want of it, and ends by rendering habitual a substitute nearly equivalent to the real virtue. It is the practice of sacrificing to those whom we meet in society, all the little conveniences and preferences which will gratify them, and deprive us of nothing worth a moment's consideration; it is the giving a pleasing and flattering turn to our expressions, which will conciliate others, and make them pleased with us as well as themselves. How cheap a price for the good will of another! When this is in return for a rude thing said by another, it brings him to his senses, it mortifies and corrects him in the most salutary way, and places him at the feet of your good nature, in the eye of the company. But in stating prudential rules for our government in society, I must not omit the important one, of never entering into dispute or argument with another. I never yet saw an instance of one or two disputants convincing the other by argument. I have seen many, of their getting warm, becoming rude, and shooting one another.—Conviction is the effect of our own dispassionate reasoning, either in solitude, or weighing within ourselves, dispassionately, what we hear from others, standing uncommitted in argument ourselves. It was one of the rules, which, above all others, made Doctor Franklin the most amiable of men in society, "never to contradict any body." If he was urged to announce an opinion, he did it rather by asking questions, as if for information, or by suggesting doubts. When I hear another express an opinion which is not mine, I say to myself, he has a right to his opinion, as I to mine; why should I question it? His error does me no injury, and shall I become a Don Quixotte, to bring all men by force of argument to one opinion? If a fact be misstated, it is probable he is gratified by a belief of it, and I have no right to deprive him of the gratification. If he wants information, he will ask it, and then I will give it in measured terms; but if he still believes his own story, and shews a desire to dispute the fact with me, I hear him and say nothing. It is his affair, not mine, if he prefers error.—There are two classes of disputants most frequently to be met with among us. The first is of young students, just entered the threshold of science, with a first view of its outlines, not yet filled up with the details and modifications which a further progress would bring to their knowledge. The other consists of the ill-tempered and rude men in society, who have taken up a passion for politics. (Good humor and politeness never introduce into mixed society, a question on which they foresee there will be a difference of opinion.) From both of those classes of disputants, my dear Jefferson, keep aloof, as you would from the infected subjects of yellow fever or pestilence. Consider yourself, when with them, as among the patients of Bedlam, needing medical more than moral counsel. Be a listener only, keep within yourself, and endeavor to establish with yourself the habit of silence, especially on politics. In the favored state of our country no good can ever result from any attempt to set one of these fiery zealots to rights, either in fact or principle. They are determined as to the facts they will believe, and the opinions on which they will act. Get by them therefore as you would by an angry bull; it is not for a man of sense to dispute the road with such an animal. You will be more exposed than others to have these animals shaking their horns at you because of the relation in which you stand with me. Full of political venom, and willing to see me and to hate me as a chief in the antagonist party, your presence will be to them what the vomit grass is to the sick dog, a nostrum for producing ejaculation. Look upon them exactly with that eye, and pity them as objects to whom you can administer only occasional ease. My character is not within their power. It is in the hands of my fellow citizens at large, and will be consigned to honor or infamy by the verdict of the republican mass of our country, according to what themselves will have seen, not what their enemies and mine shall have said. Never, therefore, consider these puppies in politics as requiring any notice from you and always shew, that you are not afraid to leave my character to the umpirage of public opinion. Look steadily to the pursuits which have carried you to Philadelphia, be very select in the society you attach yourself to, avoid taverns, drinkers, smokers, idlers, and dissipated persons generally; for it is with such that broils and contentions arise; and you will find your path more easy and tranquil. The limits of my paper warn me that it is time for me to close with my affectionate adieu.

Thomas Jefferson.

EXERCISE.

Persons whose habits are sedentary, deceive themselves into a belief that mere physical exercise will preserve health; and accordingly take daily walks for that purpose, while the current of their thoughts remains unchanged. This we conceive to be a radical error. The only exercise that can produce a really beneficial result, is that which breaks up the train of ideas, [fox hunting for example,] and diverts them into new and various channels. An eminent writer has said that it ought to be the endeavor of every man to derive his reflections from the objects about him; for it is to no purpose that he alters his position, if his attention continues fixed to the same point.—This is no doubt true; and in order to the attainment of any advantage by exercise, especially walking, the mind should be kept open to the access of every new idea, and so far disengaged from the predominance of any particular thoughts, as easily to accommodate itself to the entertainment which may be drawn from surrounding objects.

He pays dear for his bread who lives by another's bounty.

He who hopes for glory by new discoveries, must not be ignorant of old ones.

TOBACCO.

[There has been a great deal said in denunciation of tobacco, and few have dared to lift a pen in its defence, The writer of the following must have had a fume of inspiration from one of Silver's best Havanas, if not from a leaf of the real Maryland weed:]

Who most maliciously join hand and hand,
The golden plant to banish from the land;
Who'd break our pipes, and from our mouths pluck out
The quid we roll with pleasure there about;
And e'en the mild cigar would from us tear,
Whose odorous breath dispels the clouds of care:
They never, sure, at night when all was still,
Did the clay pipe with generous measure fill,
And sitting in an arm chair at the door,
The white smoke from their lips in volumes pour,
Observe it circling upward to the sky,
And in fantastic shapes behold it fly.
The thought-creating weed, they cannot know,
This sovereign remedy for inward wo,
They're strangers to; the soft delights it yields,
And calm content that every smoker feels,
May they be ignorant of, until mosquitoes
Shall cozen round their ears, and bite their nose.
Till gallinippers hive upon their head,
And by them be each minute six times bled,
And then obliged a broken pipe to get,
And may the cut-and-dry they use be wet;
Then may they draw, and puff, and sweat, and wheeze,
And all their smoke not make the insects sneeze.

Fume.

RECIPES.

On a Method of cleaning Silk, Woollen, and Cotton Goods, by Mrs. Anne Morris.

Take raw potatoes, in the state they are taken out of the earth; wash them well; then rub them on a grater, over a vessel of clean water, to a fine pulp; pass the liquid through a coarse sieve, into another tub of clear water: let the mixture stand, till the fine white particles of the potatoes (the *fæcula*) are precipitated: then pour the mucilaginous potato liquor, from the fæcula, and preserve this liquor for use.

The article to be cleaned should be laid upon a linen cloth, on a table; and having provided a clean sponge, dip it into the potato liquor, and apply the sponge thus wet upon the article to be cleaned, and rub it well upon it, repeatedly, with fresh portions of the potato liquor, till the dirt is perfectly loosened: then wash the article in clean water several times, to remove the loose dirt: it may afterwards be smoothed and dried.

Two middle-sized potatoes will be sufficient for a pint of water.

The white fæcula, which separates in making the mucilaginous liquor, will answer the purpose of *tapioca;* will make a useful nourishing food, with soup, or milk; or serve to make starch and hair powder.

The coarse pulp, which does not pass the sieve, is of great use in cleaning worsted or woollen curtains, tapestry, carpets, or other coarse goods.

The mucilaginous liquor of the potatoes will clean all sorts of silk, cotton, or woollen goods, without hurting the texture of the articles, or spoiling their colors.

It is also useful in cleaning oil-paintings, or furniture that is soiled.

Dirty painted wainscots, may be cleaned by wetting a sponge in the liquor, then dipping it into a little fine clean sand, and afterwards rubbing the wainscot therewith. [*Trans. Eng. of Arts.*

Cure for Ague and Fever, or Bilious Fever.

Within two weeks five of my children have had one fit of chill and fever, and myself one. I immediately gave an emetic; at going to bed ten to twenty grains calomel, and in the morning a spoonful of salts dissolved, every hour until the purge operates; this stopped the return; had it not, *I intended to give when clear of fever,* a grain of quinine and piperine, every hour until an adult takes ten or twelve. I wager ten to one, that in an hundred cases, ninety will escape a return of ague, or bilious fever, by observing the above, and not wait until they have *three or more* fits before taking the medicine; strong bitter ale is the best drink, and if this hot spell continues, without a good deal of rain, half the people in many situations will get sick. M.

Near Wilmington, 23d Sept. 1829.

THE FARMER.

Baltimore, Friday, October 30, 1829.

☞ The members of the *Maryland Agricultural Society* are requested to meet on the 5th November next, at the office of the American Farmer, at 12 o'clock, for the purpose of electing officers of the Society for the ensuing year. *By order,*

October 19, 1829. Henry Thompson, Sec'ry.

☞ The Trustees of the *Maryland Agricultural Society* will hold their next meeting at George Howard's, in the city of Baltimore, on Thursday the 5th November next.

☞ New Silk Reel.—A Silk Reel has been invented by Gideon B. Smith, and may now be seen at the office of the American Farmer, which, it is thought, in consequence of its simplicity, will supersede the Italian Reel. The Piedmontese Reel, the most approved one used in Europe, and the one recommended in the Manual published by Congress, is a complicated piece of machinery, requiring the use of four cog wheels, and other difficult work, to effect the vibration of the *traversing bar*—which vibratory motion is necessary for laying the thread on the bars of the reel in an oblique and crossing manner, to prevent adhesion. This vibratory motion is effected in Mr. Smith's Reel by a cylinder, with an oblique continuous groove, which is traversed by a pin attached to the traversing bar. The cylinder is fixed upon an axle, at the end of which is a drum from which a band works upon a pulley on the axle of the reel. The drum is 18, and the pulley 10 inches diameter; their size, therefore, prevents the possibility of the band slipping. A handle fixed near the rim of both drum and pulley, enables the reeler to turn the reel with either at pleasure. The operation of the reel is precisely the same as that of the Piedmontese Reel, and it may be varied to any extent at pleasure. We shall probably obtain a drawing of the Reel for publication in the Farmer, as Mr. Smith does not wish to hamper the progress of the silk culture in the United States by patenting his invention. We are requested to state that Silk Reels on this plan can be made here for 17 to $18, and that Mr. Smith will gratuitously superintend their construction. The Reel can be taken to pieces and put up in a few minutes; so that it can be transported in a compact form to any part of the union.

☞ Mexico.—A rumour has reached us, via New Orleans, that the Spanish invading forces have capitulated. This is probably correct, but the terms of capitulation as given by the report would lead us to suspect that the reporter was not well informed, as it is stated that about 1200 sick men were to be taken care of, and sent back to Havana, at the expense of the Mexican government.—Singular terms for *conquerors* to agree to!

Latest Foreign News.

Since our last there have been several arrivals from Europe bringing intelligence to the 1st October. The news circulated a few days ago that an armistice had been concluded preparatory to peace between Russia and Turkey, on terms singularly favorable to the former, turns out to have been *premature*—as the fashionable phrase is, for fabrications of this nature.

The Paris papers of the 28th of September, contain the account of the conclusion of peace, as given in the London Atlas of the 27th. There was also a rumor, on the same day, of the renewal of hostilities between the Russians and the Turks. This report was somewhat strengthened on the 29th, by the following extract of a commercial letter from Vienna, dated September 18.

"At the opening of the Exchange to-day, Bank actions were at 1193, but they fell suddenly to 1190. This fall is attributed to the rupture of negotiations, serious commotions at Constantinople, and the definitive march of the Russian forces on the Turkish capital."

It is somewhat suspicious that no dates are given for this intelligence of the "definitive march" of the Russian forces. The following intelligence from Adrianople, of the 9th September, as given by the Augsburg Gazette, is more probable.

"The conferences were suspended on the 3d, upon a declaration being made by the Turkish Plenipotentiaries, that they stood in need of fresh instructions upon one of the points under discussion. The Russian commander granted them ten days, declaring that he would not wait beyond the 14th, for the definite conclusion of peace. The point in question is believed to be the indemnity, which is fixed at 25 millions of silver rubles; (about, £4,000,000.) Anapa Poti and Akhalzick are to be ceded to Russia, who will demand nothing of the Turkish empire in Europe.—Whilst waiting for the definitive signature of the treaty on the 14th, Gen. Diebitsch continues his operations. The army holds itself ready to march, if on the day in question the Sultan has not come to a decision. Immense magazines are establishing at Adrianople, for the Russian troops."

The Augsburgh Gazette also contains the following intelligence from Constantinople, down to the 5th of September, inclusive, received by express:—

"Notwithstanding the proximity of the Russians, whose advanced posts are at Czurly, about fifteen leagues from Constantinople, tranquillity prevails in the capital, and the inhabitants hope that ere many days the treaty of peace will be signed at Adrianople. The exchange of couriers between the Russian head-quarters and the capital is very frequent. As to the conditions upon which the Russian commander insists, they are known to the Porte alone, who seems to entertain more distrust towards the foreign Ambassadors than towards the Russians. 'Russia,' say the Turks, 'treats us with rigour, but not with bad faith.' It is rumoured that the letter addressed to the Grand Vizier by Count Nesselrode at the commencement of hostilities will form the basis of the negotiations for peace. The sum to be paid by the Porte as an indemnity for the war will be fixed at St. Petersburg, and Turkey will give guarantees for her fidelity in fulfilling the conditions of the treaty of peace. No doubt of the early termination of hostilities can be entertained, as the Ottoman ministers are completely disheartened, and express themselves in terms of veneration and devotedness for the Emperor of Russia. We are assured that hostilities have been suspended until the peace be ratified. Nevertheless the works of fortifications are pushed with activity. The Sultan does not quit his camp at Barnis Tschiftlick. The Mussulmans are enjoined not to lay aside their arms. This measure, and the appearance of Russian troops at Karaburna, on the Black Sea, and at Czurli, indicates but too clearly that Gen. Diebitsch intends to follow up his operations until the conclusion of peace."

The following intelligence from Belgrade, Sept. 8, is also furnished by the Augsburg Gazette.

"Letters from Adrianople, announce that the Turkish Commissioners charged with negotiations at the Russian head-quarters, endeavour to protract them, but Gen. Diebitsch has fixed a term peremptorily, after which he will attack the capital without delay."

Liverpool Cotton Market, Sept. 29.

A good demand for Cotton to-day, chiefly from the spinners, has enabled the holders to dispose of about 2500 bales at last week's price; Sea Islands may be quoted at 1-2d per lb. higher than the prices obtained at the public sale of the 21st ult. and not many offering at the advances.

From the London Prices Current of Sept. 25.

Cotton.—The information of the destruction of the Sea Island crop, has had scarcely any effect on prices. There is a steady demand at former prices.

Tobacco.—The market is very heavy since the late arrivals. The delivery, however, is very large.

Corn Exchange, *Friday, Sept.* 25.—The fresh arrivals of English grain during the week have been very moderate, and the importations consist of about 8,650 quarters of wheat; 1850 quarters of barley, and 8,300 quarters of oats. The sales of new English wheat continue dull, and even the best qualities are lower than last advised.

Notwithstanding the fresh arrivals of oats are so moderate, the quantity pressed on the market from the granaries is more than sufficient for the present limited demand, and we experienced to-day heavy sales for all descriptions of old at a decline of 1s., and on the new of 2s. per quarter of Monday. Beans and Peas have undergone no alteration, nor have we to notice any change in linseed or rapeseed.

Havre Markets, Sept. 30.

Corn and Flour.—500 Petersburgh, slightly damaged, sold at 19f 50. The demand for American Flour is confined to city consumption,

Cottons.--Our rates for United States short staple have undergone no variation since our last, but the favour we then noticed on ordinary to fair Sea Islands, has further increased, and the advance on these descriptions may be estimated at 15 to 20 centimes upon last month. The sales since our last comprise 3859 bales, viz: 1072 Louisiana at 94 a 105 c.; 2499; Uplands, Mobile, Alabama and Tennessee, at 77 a 95 c. 108 Sea Island, at 165 a 180. Further sales of Sea Islands have been made at prices which are kept secret.

Rice.--We have had a steady demand for the last ten days, and purchases of some magnitude.—Up to yesterday, 761 tierces and 115 bbls. were sold at 19 a 23 f. chiefly at the latter price. Yesterday, 257 tierces of Carolina were sold at 23 f. 50.

Prices Current in Boston, October 23.

Apples, best, bbl. 2.00 a 2.50. *Beans*, white, bushel 1.00 a 1.25. *Beef*, mess, bbl. 9.00 a 9.50; cargo No. 1, 8.00 a 9.00; No. 2, 7.00 a 8.00. *Butter*, inspected, No. 1, new, lb. .13 a .15. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 6.25 a 6.50; Genesee, 6.00 a 6.12; Rye, best, 3.75 a 4.00. *Grain*, Corn, bu. .62 a 63; Rye, .65 a .68; Barley .67; Oats .36 a .38. *Hogs'-Lard*, 1st sort, new, lb. .8. *Pork*, clear, bbl. 16.00 a 17.00; Navy, mess, 13.00 a 13.00; Cargo, No. 1. 12.50 a 13.00. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel -----. *Wool*, Merino, full blood, washed, .35 a .45; do. do. unwashed, .20 a .30; do. three-fourths, washed, .30 *a* .33, do. half blood, .28 *a* .30; do. quarter, washed, .25 *a* .26; Native, washed .25 a .26; Pulled, Lambs', 1st sort, .35 a 36; do. 2d sort, .26 a .27; do. spinning, 1st sort, 30 a .32.

Prices Current in Philadelphia, October 27.

Bees-wax, yellow .22 a .23; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10 a 10.50, prime 9 a 9.50, cargo 7; *Butter*, No 1, .7½ a .8, No. 2, .5 a .6; *Cotton*, New Orleans .10 a .12, Upland 9. a .10, Tennessee 9. a .10, Alabama 9. a 10; *Feathers*, South. .34 a .36, West .33 a .34; *Flax* .7½ a .8 *Flour*, sup. 5.25, fine, 5.00 a ——; Rye 3.62½ a 3.75; Cornmeal, hds. 11.75 a ——, bls. —— a 2.25; *Flaxseed*, cask —— a ; bu. 1.10 a 1.15; *Grain*, Wheat 1.10 a 1.12; Rye .50 a.55, Corn l. c. white, .48 a .49, l. c. yellow, .50 a .52, u. c. round, .55 a .57; Oats .25 a .31, Barley, Pa. .60 a .62½; do. East. .62 a .62½; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .6 a .7; *Oil*, linseed, .69 a 70 ; *Pork*, mess, 13.00 a 13.25, prime 11.50 a 12; cargo 10.50 a 11.00; *Rice*, 2.50 a 3.00; *Tobacco*, Kentucky .4 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .18 a .22, half blood .26 a .—; three quarters blood .28 a .32, full blood 28 a .32; unwashed, generally 6 cents less, according to quality.

FARM FOR SALE.

The beautiful estate, called ANDREWSIA, situated on the Heights, within a mile of Wilmington, Delaware, and commanding an extensive view of that town—the waters of the Delaware and Christiana, and of the rich and picturesque country in a circle of many miles.

It consists of 168 acres, whereof 59 acres are natural meadow, in excellent order, 25 acres of wood lands, and the residue in fertile arable land, well sustained by a regular course of liming.

The *Mansion House* is built of stone, pebble-dashed, and the interior walls studded throughout, so as to exclude dampness at all seasons. The dimensions are sixty-two and a half feet front by forty-five feet deep, with colonnades to the piazza fronting the river. The Mansion is built of the very best materials, and in the modern style, having marble mantles and mahogany doors; and cost $15,400 to construct. The *lawn*, consisting of about three acres, is adorned with trees, shrubs and perennial and other flowers of the choicest kinds. The garden, attached, contains one and three fourth acres of prime soil, screened by a board fence six feet high, and is well stocked with choice peach, pear, quince and cherry trees, raspberry, gooseberry and currant bushes, strawberry and asparagus beds. There are two coach houses, stable for six horses, tool house, smoke house, seed house, bath house, (supplied by a never failing fountain of the best water,) wood, and wash houses, &c. &c.

The *Tenant's* house is in view at a suitable distance, and is a large, convenient two storied brick building, having two parlours, a kitchen, and five bed rooms. Attached to it are a good spring house, hen house and garden.

The *Barn* is of stone, and in perfect repair; underneath it is stabling for six horses and seventeen head of cattle. The barn yard is sheltered by a high stone wall in front, and by a new stone shed running from the northwest gable end of the barn to the aforesaid stone wall. The upper part of the shed destined for hay is constructed of wood, and has several windows to admit a free circulation of air, when required; the under part is capable of accommodating 34 head of cattle. There is likewise a wooden shed attached to the west by south gable end of the barn. Thus the barn yard is completely sheltered from the north and west winds.

There are two extensive apple orchards contiguous to the mansion, and tenant's house, and a lime kiln for burning oyster shells.

Within two years the ditches of all the meadows have been cleaned out, and new post and rail and board fences substituted in place of the old, and gates allotted to each field.

The situation of this estate is peculiarly advantageous, being on an excellent turnpike road to Wilmington, which affords a good market for milk, butter, poultry, fruits, vegetables, &c.; and not more than two miles from the Brandywine mills, where at all times wheat and corn command a fair cash price. The stores of Wilmington furnish every description of articles in the grocery, dry good and hardware line. Owing to the facility afforded by the *new steamboat*, which will commence running this month, and perform her trip to Philadelphia in three hours, a person may visit that city, spend five hours there, and return the same day to his evening repast; and the approach to Baltimore requires but a part of a day. Another advantage is the proximity to the Chalybeate springs, distant five miles; where, at the season, many friends and acquaintances from the neighbouring states are to be met with. The last and most important advantage in the location of the estate, is in its unquestionable salubrity, as experienced by the numerous family of the present proprietor.

For further particulars apply to Capt. Joseph Nicholson, of U. S. Navy, Charles street, Baltimore; and for terms, to the proprietor on the premises.

Andrewsia, near Wilmington, Del. Oct. 4, 1829.

ALMANAC.

1829. Oct—Nov.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 31	6	48	5	12	10	24	8	21
Sunday,........ 1	6	49	5	11	10	22	9	15
Monday,....... 2	6	50	5	10	10	20	10	13
Tuesday,...... 3	6	51	5	9	10	18	11	15
Wednesday,.. 4	6	52	5	8	10	16	morn	
Thursday,..... 5	6	54	5	6	10	12	0	20
Friday,......... 6	6	55	5	5	10	10	1	28

Moon—First Quarter, 4th, 4 h. 44 m. Mor.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There is little change in flour since our last, Howard street from stores being held at $5.25, and dull.—Grain. Wheat has declined about 5 cents, and sells readily at quotations; corn is tolerably brisk. Beef is dull at our rates.

Tobacco.--Maryland, ground leaf, $6.00 *a* 13.00—seconds, ordinary, 4.00 *a* 6.00—red, 4.00 *a* 5.00—fine red, 8.00 *a* 13.00, for wrapping 7.00 *a* 12.00—Ohio, common, 4.00 *a* 5.00—good red 8.00 *a* 13.00—fine yellow 25.00 *a* 30.00.—Rappahannock, 3.50 *a* 4.00—Kentucky, fine 4.50 *a* 7.00—wrapping, 4.50 *a* 7.00.

Flour—best white wheat family, $6.25 *a* 6.75—super. Howard st. 5.25 *a*——; city mills, 4.75 *a* 5.00; Susquehanna,-—. Corn Meal, bbl. 2.37½—Grain, best red wheat, .90 *a* .95;—best white do. .95 *a* 1.05; ordinary to good, .90 *a* .95--Corn, white, .48; yel. .48 *a* .50; new, 41—Rye, .48 *a* .50—Oats, 28. *a* .29—Beans, 1.10 *a* 1.15—Peas, .60 *a* .65—Clover seed, 4.00 *a* 4.25—Timothy, 2 *a* 2.50—Orchard Grass, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—Barley, .45 *a* .50—Flaxseed, .75—Cotton, Virg. .9½ *a* .10—Lou. .11 *a* .12—Alab. .9 *a* .10—Mississippi .10 *a* .12—North Carolina, .8 *a* .9—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .22½ *a* 28—in bbls .24 *a* 25½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22--three-quarter, .25 *a* .30--full do. .30 *a* .50, accord'g to qual.—Hemp, Russia, ton, $210 *a* —; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, —— *a* 5.50—Herrings, No. 1, bbl. 3.75 *a* 4.00; No. 2, 3 50 *a* 3.75—Mackerel, No. 1, 5.37½ *a* 5.50; No. 2, 4.75; No. 3, 3.75—Bacon, hams, Balt. cured, .9 *a* .10; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .30 *a* .31—Plaster Paris, cargo price per ton, $4.00, ground, 1.25 bbl.—Prime Beef on the hoof, $4.00 *a* $4.50. Pine Wood, by the vessel load, from 2.25 to 2.50; by the single cord, 2.50 *a* 2.62½—Oak Wood, by the vessel load, 3.25 to 3.50; by the single cord, 3.50 to 3.62½.

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AGRICULTURE.

REMARKS ON THE GOAT AND SHEEP.

J. S. Skinner, Esq.

Sir,—Among the many extraordinary facts which the study of fossil remains has exposed to our reflections, it is not among the least of these, that as yet no bones of the caprine or ovine species have been detected.

In the great and overwhelming catastrophe, so clearly indicated by the researches of the geologist, to have extended so generally and to have been so desolating in its effects, these species must either have escaped, or could not have had a previous existence. Connected with a phenomenon so universal, shewing its effects in every explored region of the earth, the first supposition is highly improbable. As we find the remains of animals, superior in intelligence, in physical strength, in capacity to endure suffering, or in means of escaping, to either of the species mentioned. Nor can we suppose their remains to have become completely decomposed, as we find well preserved, the remains of animals of a far more fragile osteology. Nor that they were of a limited range of habitat, and located within a district to which this general bouleversement of nature did not extend; as we find these animals now spread in every quarter of the globe, natives of various climates, and of dispositions disposed to rambling. We are driven, therefore, as the most probable, to the supposition that they were an object of creation subsequent to this general catastrophe; and probably coeval with the creation of man, or as an alternative, that their remains have hitherto eluded the researches of the naturalist. And when we consider the inoffensive characters of these species, their aptness to domestication, and how many of the wants of man they are enabled to supply, they appear peculiarly fitted for his existence only, to receive his protection, and yield in return a support, and by thus creating a mutual bond of dependence, diminish the ferocity of a savage life, and lead him gradually and quietly to herding and civilization.

The differences of conformation between the sheep and the goat, are considered so trivial, as hardly to justify their being placed as distinct species. They will breed with each other, and their issue is prolific; and the ancients were of opinion that sheep were merely a hybrid production. And yet that they are different in species is generally admitted among scientific men; and notwithstanding their prolific issue, that there is a repugnance to a mixture, not known in animals of the same species, is evident, as where herds of goats and sheep run without control, on the west coast of Africa, for instance, the breeds of each exist perfectly distinct, and without the least evidence of intermixture. Now if there were not some natural repugnance, when exempt from restraint they would produce one common stock, possessing the characters of both, and the peculiar marks of each breed would be lost.

But Cuvier considers the sheep and the goat as scarcely meriting the distinction of different species; and Mr. James Muirhead, in a statistical account of the parish of Urr, enumerates a hybrid produce between the sheep and the goat, which is fertile, black-faced, and differs but little from the black-faced sheep, and that the intercourse is common. Now should there be no mistake in this statement, we must accept the goat and the sheep as mere varieties of one species. Willing intercourse and prolific hybrids are acknowledged to be unequivocal evidence of sameness of species.

The doubt should at least make those who have choice flocks of sheep, careful of the goats in their neighbourhood, for the latter has no property which would be considered by breeders as an improvement on the former.

The characteristic distinctions between the two breeds are these: The horns of the goat rise up from the head and then bend backwards, those of the sheep rise also, curve back, then curve forward and then backward, making a complete circular twist; the bones of the face of the goat are flat, forming the appearance usually called dish faced in the horse; those of the sheep are arched, forming the appearance called Roman nose; the goat has a beard, the sheep is without; the goat in his battles rises on his hind legs and strikes obliquely at his antagonist; the sheep stoops his head and runs at his antagonist like the ox.

The sheep is unquestionably the most profitable of the two breeds. The milk of the goat is more abundant and nourishing; on this account he is advantageously substituted for the cow, in the mountainous and rocky regions, in which he so much delights. His flesh is not much esteemed, and next to his milk his skin is the most profitable produce. The sheep also produces milk, his skin is next to that of the goat, for similar uses; his flesh is esteemed throughout the world, and his wool is universally known and valued.

The Cachmere breed of the goat is the most esteemed for its wool, which is straight, long, white, and of a fine silky texture. And next to this, in value of wool, is the Thibet or Tartar breed, (a variety of the Cachmere.) These last have been lately introduced into France, and promise well. There are other breeds which produce a long hair, but none of much celebrity.

That distinguished naturalist, Major Smith, speaking of the sheep, remarks: "At first no doubt it was without wool, but certain parts of Asia have a natural tendency to prolong the fur of animals; even of Carnivora and Rodentia. It is there we might conjecture, that the wild ægagrus, (a goat,) lengthened and refined its short hairy covering into that of great length and the finest texture, and the newly domesticated Argali first put forth the under down of its fur, to obliterate the setaceous hair and assume the fleece. The high Western basin of Cantal Konti, or Cachmere, the secondary valleys of ancient Taurus and Caucasus, the Chorassan and Caramania, and at length the environs of Angora, or central basin of Asia Minor, about the sources of the Halys and Sakaria, may be considered as the favoured nurseries from whence the improved fleece-bearing animals have gradually spread over the rest of the world. It was at the foot of Caucasus that Jason obtained his celebrated spoils."

From the above extract, the domestic sheep is considered as the produce alike of the ægagrus and the argali, a wild goat and a wild sheep; and the climate has produced from either or both of these, the very valuable fleece-bearing animal, now so extended throughout the civilized world. The correctness of this opinion is highly probable, and he must have been a negligent observer, or limited traveller, who has not verified by his own observations, the powerful effect of climate in modifying the covering of animals. We doubt if the fine wool of the sheep can be maintained in a climate unacquainted with the rigors of winter; and where these are most severe, we know that the wool of the sheep, of the best merinoes, is to be much improved The writer of this article had once shewn to him, by that highly intelligent and valuable citizen, Governor K. of Maine, specimens of his shearing for several successive years, of the same flock of merinoes The improvement of the wool was progressive and very evident. That of the last year's would compare advantageously with the finest Saxon. The course he had pursued with his flock was, to select after each shearing, the best formed and finest woolled of the young rams, and preserve these to run with the flock.

This was an evident case of progressive improvement from the climate and a proper attention. Where the winters are mild, the cold rarely below the freezing point, I doubt if more could be done with sheep than to preserve their wool from deterioration; and where in our country we have no ice during the year, I have no doubt that the wool of this animal will lose in weight and fineness of texture, and become coarse and hairy.

It would be highly valuable information, to ascertain these limits of improvement, maintainance and deterioration; and if the owners of flocks throughout the United States would bestow some attention on this question, it could not fail to produce valuable and beneficial results.

Spain, which now furnishes in such abundance the finest sheep for the fleece, was, as far back as 1466, inferior in its breeds of this animal to England, in which last country they were then considered so superior as to be the subject of a present from a king of England to a king of Spain. We see in this statement the powerful influence of climate upon this animal. Spain now produces finer fleeces than England, with all her superior knowledge of breeding. Spanish wool is yet in demand for her finest cloths, from which it is fair to infer, as England has no doubt had unembarrassed access to Spanish sheep, that these animals do not maintain their qualities in that climate, from causes independent of temperature, I should suppose, as it is sufficiently cold.

England, however, possesses great varieties of breeds, and many highly valuable, adapted to her various localities, the result of great expense, and of the most intelligent and persevering attention for many years.

The most celebrated of these are:

1st. The *ancient race* or *black-faced* heath sheep.* The rams have horns more contorted than the merinoes, the females are without. Face and legs black or spotted with black; tail very long, a coarse shaggy wool extending over the forehead and nether jaw. Eyes of a fiery wild aspect. Flesh peculiarly fine and high flavoured. Carry from three to four pounds of wool, and are found in the northwest of Yorkshire, Northumberland and Westmoreland.

2d. *Norfolk Sheep.*—These retain in their large spiral horns and black faces, marks of originating from the heath. Have long dark or grey legs, and large bones. The carcass long, small, thin and weak. The wool short and fine, from one and three quarters to two pounds the fleece. Of a voracious appetite and restless disposition. Are found in Suffolk and Norfolk.

3d. The *Dorset sheep.*—Horned like the second, and usually in both sexes. Stand high, upon small legs, and thin in the carcass. Wool fine and short, and from three to four pounds to the fleece. This breed has the property of producing lambs at any period of the year.

4th. The *Wiltshire*, a variety of this last, but of more weight, and generally without wool on their bellies.

5th. The *Herefordshire.*—Horns common to both sexes, is finely proportioned and with short tails.

6th. The *Hebridean* is the smallest animal of the kind. Its fleece rarely exceeds one pound.

7th. The *Lincoln breed.*—A hornless race; long wool, white lace, carcass long and thin, rough legs, bones large, pelts thick, coarse grained flesh. Wool from ten to eighteen inches long, and weighing from eight to fourteen pounds the fleece. Fatten slowly.

8th. The *Teeswater.*—Wool shorter and lighter than the former; legs longer, and the carcass thicker, firmer and broader. Flesh finer grained and more weighty.

9th. The *Dishley* or New Leicester, differs from other long woolled breeds, by its clean head, flat back, round barrelled bodies, fine small bones, thin pelts, and a readiness to fatten at an early age. The mutton is fine grained and high flavoured. The fleece weighs from six to eight pounds.

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* See Major H. Smith on the Ruminantia.

10th. *Devonshire Nots.*—Long wool, white faces and legs, thick necks, narrow backs and high back bones.

11th. *Herefordshire.*—Short woolled and hornless. White face and legs, carcass well made, affords excellent mutton. Wool very fine, from one and a half to two pounds the fleece.

12th. *South Down.*—These have gray faces and legs, fine bones, long thin necks. Low before and light in the fore quarters. The fleece very short and fine, weighing from two and a half to three pounds.

13th. The *Cheviot breed.*—Head bare and clean. Faces and legs white, subject to spots of dun. Fore-quarters small, body long, legs fine and covered with wool to the hoof. Fleece weighs about three pounds.

14th. *Hardwyck breed*—This race is peculiar to the rocky mountainous district at the head of Duddon and Esk rivers, in Cumberland. Have speckled faces and legs, wool short, weighing from two to two and a half pounds the fleece. The wool finer than that of the heath sheep.

Much attention has also been paid to the breed of sheep in France. They are generally the result of a crossing with the Spanish, English and Flemish breeds.

The *Flemish breed*, common to both France and the Netherlands, is generally without horns, high on the legs, and derived from an intermixture with the Barbary long-legged sheep.

The *Solognots* have a fine head, small at the mouth, generally without horns, wool curled at the ends only.

The *Berichones* have long necks, head without horns and covered with wool at the summit. The wool on the body white, close, short and curled.

The *Roussillone* yields a very fine wool, and is derived from the merino races.

The *Ardenoise* is horned and bears a very fine wool.

In Germany likewise the breed of sheep has been much attended to of late. The flocks of Saxony and Bohemia furnish wool of a very superior quality.

Africa also has several breeds of sheep. The Adimain or long-legged breed, stands very high, of a robust make but with hollow flanks. The ram measures three feet high at the shoulder, and his length rather exceeds four feet and a half. The tail is very long and the neck short, and there are great differences in the quality of the wool from different parts of the body. It has a heavy mane of hair. The subordinate breeds of this race are, the *Morocco breed*, the *Guinea breed*, which last was introduced into Holland, and produced a cross breed which produced lambs twice a year; and the Congo breed, distinguished by wattles beneath the throat.

Africa has also several Angola breeds, and the celebrated *Hottentot broad-tailed sheep*, indigenous to the Cape of Good Hope. This last breed has become extended, under various modifications over Egypt, Barbary, the Levant, India, China and Russia, and in small numbers over all Europe and the United States.

The last race which we shall mention, and which is extended over all Spain, is the justly famed *merino*. It is too well known and too much extended over our country, to need as minute a description as its rare merits would otherwise require. It bears wool on the forehead and cheeks; the horns of the ram are very large and much contorted, and the female is without any. Its head is large and body round, and there is sometimes a loose pendulous skin under the throat, which in Spain is esteemed as denoting a tendency to fine wool and a heavy fleece.

Although we have extensive flocks of sheep in the United States, and of many varieties, yet their history and characteristic peculiarities are too little known to admit of specific descriptions. No information would be more desirable than that which would lead to this knowledge. If extensive breeders would turn their attention to this subject, and make their observations public, we would find that our country also, in its various climates, has a tendency to develop peculiarities which would constitute distinct races. Nor can, in my opinion, the breeding of this or of any other animal, sensibly affected by climate, ever be carried to perfection, until the tendency of climate upon them is well known, and the efforts of breeders are directed in unison with its slow but never ceasing effects.

In climates which operate deterioratingly upon the sheep, its good qualities can be maintained only by continued importations; and in such climates it should not be a question as to the advantage of abandoning its culture generally, and bestowing the time and expense wasted on these, upon animals more congenial to such localities.

BRITISH AND FOREIGN WOOLS.

Our British wool trade, both in the London and provincial markets, has been, if possible, more dull, at still further reduced prices, during the last quarter, than that which preceded it; and in Scotland prices have been also on the decline; whilst wools of foreign growth, in the finest of which comparatively little has been doing, have participated in the depression, though by mock transactions, or some other mysterious or knavish means, the holders have found means not to let their quotations fall to more than from 10 to 15 per cent. beneath those of our last quarter's report.

We quote all the different kinds that we quoted last quarter, though from the dullness of the demand, most of the quotations are nominal; scarcely any thing except the middling Spanish and Botany-bay wools having been saleable:—Saxony Electoral wool, 3s. 6d. to 6s. 9d.; first Saxony, 2s. 6d. to 3s. 6d.; second ditto, 1s. 9d. to 2s. 3d.; locks and fleeces of ditto, 10d. to 2s. 3d.; ditto lambs' ditto, 1s. to 3s.; Austrian first ditto, 2s. to 5s.; Hungarian second ditto. 2s. 3d. to 2s. 9d.; Silesian, 3d, ditto, 1s. 6d. to 2s. 6d.; Bohemian lambs' ditto, 9d. to 2s. 6d.; Leonesia ditto, 1s. 6d. to 2s. 6d; Segovia ditto, 1s. 2d. to 1s. 9d.; Soria ditto, 1s. 1d. to 1s. 4d; Seville ditto, 11d. to 1s. 1d.; Portugal ditto, 7d. to 9d.; Spanish lambs' ditto, 10d. to 1s. 2d; Van Dieman's Land ditto, 6d. to 1s; and British ditto, 5d. 5½d. 6d. 6½d. 7d. 7½d. 8d. 8½d. 9d. 9½d. 10d. and 11d. per lb.—July 20. [*Brit. Far. Mag.*

Observations on the Rural Affairs of Ireland; or, a Practical Treatise on Farming, Planting, Gardening, &c. By Joseph Lambert, Esq.

[*Extracts*—from the British Farmer's Magazine.]

Among his observations on fallowing, the following is most valuable:—

"Make it a fixed rule never to plough your land in wet weather, and the observant farmer will, no doubt, have often remarked, in the same field, the difference in the crop on a spot ploughed in bad weather, and that ploughed when the soil and weather were dry. It is only on dry, sandy, or light land, that ploughing ought to be carried on in moist weather."

He recommends fallowing, though

"Some writers have been against the system of fallowing altogether, principally from the delay of the process; this is the only argument against it; but it will and ought to be continued on stiff soils, or those of neglected tilth, as long as it is meant that agriculture should prosper. How can its utility be denied, or its advantages disputed, on stubborn land requiring to be cleaned, and freed from weeds? Is it not also a great means of restoring exhausted land? Some writers maintain that you may go on cropping land for ever by fallowing. Wheat is never so good grown in any other way, and it will not only return a greater produce, but more flour, fairer and better in quality, than that grown otherwise."

The author's opinion of fiorin, and of other grasses, deserves notice.

"Fiorin grass, (*agrostis stolonifera,*) called also joint or nine-kneed grass, which grows so commonly in Ireland, and has been so much spoken of by Dr. Richardson, is not now sown as frequently as it had been some years ago, as it does not continue to yield abundantly after the second crop, and is somewhat more troublesome and expensive than other grasses propagated by seed. It is said to have extraordinary powers of vegetation, so as to grow after being made into hay, and even after remaining in stacks or lofts for a considerable length of time.

"When planting, the grass or hay is cut up, leaving a joint to each layer; it is strewed then on the surface and covered to the depth of about two inches. I planted about an acre of it some years ago on a piece of moory land; the produce for the first crop was very great, equal to the heaviest meadow. The second crop was not more than two tons to the acre. It must be top-dressed after the second crop, or it will not be worth cutting. Some of what I planted had been cut three weeks and apparently dry as any hay, *yet it grew freely.* The hay is succulent and good for horned cattle, but it is said to create the botts in horses. Fiorin grows best on a mixture of peat, marl, and gravel.

"The nicest and most accurate observation of the botanist is necessary to distinguish many of the different varieties of grasses from each other, the similarity being so great between many of them. The most useful are the *rye* or *ray grass*, of which Pacey's variety (*lolium perenne*) is the most valuable, *sweet-scented vernal grass, meadow fescue grass, meadow foxtail grass, rough and smooth stalk meadow grass, cocks' foot, white clover, trefoil, red clover,* and different varieties of the *fescue.* The rye grass I place first, as probably that of the greatest produce; the sweet-scented vernal, the earliest herbage, and which principally imparts a fragrance to the new mown hay. Clover is that which produces most nutriment, the broad or red clover being equal and even superior to most in produce."

His mode of shifting his stock on grazing ground is worth knowing.

"Suppose you put twenty cows into a reserved field of twelve acres on the 1st of June; if the land is prime, it will answer them until near the 1st of July, but a quantity of long refuse grass will probably remain; on this it is that I propose turning in for the first week, after the removal of your fattening stock, at least forty bullocks to remain till they eat down the grass only; if in a week, so much the better; drive off the stores then, say by the 8th of July, and the enclosure must be preserved until the end of August, when you will have another round of clean fresh grass for your fat stock. There is no waste by following this method, and it will be found highly beneficial to the stock, as well as the best economy. Two or three turns by good management will be had out of each field during the summer and autumn. To those extensive in the dairy line, I would advise the same practice. Good enclosures for this, as well as many other reasons, will enhance the value of a farm much. The closer and more evenly your pastures are eaten down, the kinder and better they become: and when grass grows too freely of a wet year, it will be inferior in fattening qualities to that of a dry.

"No man should pretend to judge decisively of the fattening qualities of land, or its proof or staple for tillage, at once or at first sight. It is only by character; by seeking the stock it turns off, or the crops it grows, that he can decide. The grassy qualities of land are more easily discernible."

On stall feeding he says,

"One of the quickest and most certain methods of fattening cattle in the stall is, by feeding with bran and linseed oil mixed, the proportion two pecks of bran a day, divided into three feeds, and half a pint of oil to each feed, mixed well for small cattle; the proportion to be increased for large."

Among his observations on dairying he advises—

"A calf intended for a bull, or even a heifer calf of a particular breed that you wish to improve, should be let run at large with its dam, giving it the entire milk. If a calf is bad at its birth, it will never be a thriving or growing one, and the time to grow and swell any animal is when young and soft; if neglected then, never expect improvement. The calves which are not let run with the cow, should have a small enclosure for themselves of soft sweet herbage; and when the weather permits, be let out into such soon after being calved, as it will add to their health and growth; their pasture should be changed also occasionally."

On breeding live stock he advises—

"To avoid consanguinity and breeding from the same family, or what is commonly termed breeding *in-and-in*, as such will, if persevered in, prove highly injurious; you must therefore procure your males from those having a similar breed, but of different blood from your own. A skilful breeder will not use the tups bred on his farm, although superior in shape to any he can procure; and those possessed of the best stock, both of the short horn and long-horned cattle, keep two or three separate lines of blood to avoid consanguinity; but as crossing with different breeds will generally disappoint when prolonged in the line, each breed in its kind should be kept distinct."

STATEMENT,

Of a trial instituted by his Grace the Duke of Bedford, between the Hereford and Improved Short Horn breeds of Cattle, in the ordinary mode of feeding, without forcing by artificial Food of any description.

Four two years old Short Horn steers, viz. Nos. 1 and 2, bred by Mr. Payne, of Shadwell Grange, No. 3, by Mr. Maynard, and No. 4, by Mr. Wetheral, of Holme-house, near Darlington, all selected by Mr. Geo. Coates, author of the Herd book; and Nos. 1, 2, 3, and 4, two years old Hereford steers, all bred by his Grace the Duke of Bedford; both breeds put together into a straw yard at Park Farm, Woburn Beds, on the 20th of December, 1827, and were given in the open yard at the rate of one bushel of turnips per beast per day, with straw only, until May 2nd, 1828, when their live weights were taken as under, and put to graze.

	Cwt.	qrs.	lb.		Cwt.	qrs.	lb.
No. 1. Hereford.	8	3	0	No. 1 Short Horn.	9	2	0
No. 2.	7	3	0	No. 2.	8	2	0
No. 3.	7	2	0	No. 3.	9	0	0
No. 4.	7	0	0	No 4.	7	1	0

The above steers, taken fom geass and put to the stall upon November 3d, 1828, at the same time weighed as under:

No. 1. Hereford.	11	3	[illegible]	No. 1. Short Horn.	12	3	14
No. 2.	10	2	0	No. 2.	12	2	0
No. 3.	10	1	14	No. 3.	12	3	0
No. 4.	10	3	0	No. 4.	10	2	0

His Grace the Duke of Bedford, finding that No. 3, of Herefords, and No. 4. Short Horns, were inferior to the others, tookthose two out of the experiments, and as it had been observed upon a former trial of the same kind, that if the Short Horn breed had not been gorged, but given the same quantity of food only as the Hereford breed, they would have done better; No. 3, Hereford, and No. 4, Short Horn, were also put to the stall, when No. 3 had as much food given to him as he could eat, with an ample allowance to make waste; when exactly the same quantity was given to No. 4, Short Horn, as to No. 3, Hereford, all the waste weighed back, but that of No. 4, being nothing more than the sweepings of the manger, which shewed that he could have ate more if given to him, so that the exact quantities ate only, are herein stated, and not what was laid before either of the above eight steers.

Food consumed by the three best Herefords, and three best Short Horns, viz:—

	No. 1, 2, *and* 4, *Herefords.* Sweed Turnips. lbs.	Hay. lbs.	No, 1, 2 *and* 3. *Short Horn.* Sweed Turnips. lbs.	Hay. lbs.
From Nov. 4 to 30	8191	456	11351	523
Dec. 1 to 31	9591	1037	12994	1421
1829. Jan. 1 to 31	10111	1333	12756	1715
Feb. 1 to 28	10058	1165	11994	1675
Mar. 1 to 24	8704	1074	10332	1445

March 25th. The live weights of Nos. 1, 2, and 4, of Herefords, and 1, 2, and 3, of Short Horns, were again taken as under:

	Cwt.	qrs.	lbs.		Cwt.	qrs.	lbs.
No. 1. Hereford,	13	0	14	No. 1. Short Horn,	11	2	0
No. 2.	12	0	0	No. 2.	14	1	14
No. 4.	12	0	0	No. 3.	14	2	14

When they were sent to Smithfield, and sold by Mr. John Stopp, salesman, upon Monday, March 30th, 1829, viz.

No. 1. Hereford,	*l.* 27	No. 1. Short Horn,	*l.* 27
No. 2.	24	No. 2.	25
No. 4.	23	No. 3.	26
	74*l.*		77*l.*

Herefords No. 3, and Short Horn No. 4, consumed, viz.

	Hereford. Sweed Turnips. lbs.	Hay. lbs.	*Short Horn* No. 4. Sweed Turnips. lbs.	Hay. lbs.
From Nov. 4 to 30	1728	180	1801	211
Dec. 1 to 31	3373	403	3461	486
1829. Jan. 1 to 31	4400	433	4474	492
Feb. 1 to 28	3018	368	3066	430
Mar. 1 to 24	3262	318	3327	366

March 25th, 1829. Live weights of above No. 3, and 4, were taken, viz.

	Cwt.	qrs.	lbs		Cwt.	qrs.	lbs.
No. 3. Hereford,	11	1	0	No. 4. Short Horn,	11	2	0

When they were sent to Smithfield, and sold by Mr. John Stopp, salesman, on Monday, March 30th, 1829, viz.

Hereford No. 3. *l.* 22 and Short Horn No. 4. at *l.* 20

⁂ It is an essential character of all experiments, similar to that we have been enabled, by the condescension of the Duke of Bedford, to detail for our readers, that they should proceed from a quarter placed far above all suspicion of partiality; and in this case we scarcely need observe, the account may be received with implicit confidence. The statement is so circumstantial, it seems unnecessary to dwell on the particulars; but a few general remarks may not be misplaced. In experiments of this kind, intended so far as they go to settle an important question, in which are involved many interests, it is probable objections would be made to the mode of selecting the animals, or to the animals themselves when selected. Indeed, we anticipate such will now be the case. We are personally unacquainted with the merits of the Duke of Bedford's Herefords, but have heard them well spoken of. Of the Short Horns selected for the trial, we know more, and did many months ago hear a strong protest against Mr. Coate's selection, as not possessing the requisite degree of blood, and as deficient in general merit. On perusal of the statement, this protest appears well founded, for we actually find on the whole, the heavier Short Horns selling for less money than the lighter Hereford's; from which we infer they must have been indifferent specimens of a breed, which, when good, is in high request. These remarks are made chiefly with a view to stimulate those who could essentially contribute to forward his Grace's views of ascertaining a fact important to the public. We know that his commission for the purchase of short horned steers was quite unlimited, and if the best possible trial which could have been had has not taken place, it is not owing to want of liberality in the Duke of Bedford, but apparently to a misapprehension on the part of the agent employed.

[*Editor B. F. Mag.*

THE HOP MARKET.

The trade with hops during the greater part of the spring was depressingly dull, at from 3*s.* to 5*s.* per cwt. beneath our last quarter's average quotations; but, owing to unfavourable accounts, either untrue or fallacious, from the whole of our hop districts, they have been, since old midsummer, gradually advancing in price, and were, to-day, in tolerably brisk demand at the following prices, which are from 10*s.* to 2*l.* 5*s.* per cwt. higher than are those of our last quarter's statement:—East Kent hops, in pockets, from 6*l.* 10*s.* to 8*l.* 8*s.*; ditto, in bags, 5*l.* 10*s.* to 6*l.* 16*s.*; Mid Kent ditto, in pockets, 6*l.* to 7*l.* 5*s.*; ditto, in bags, 5*l.* 10*s.* to 6*l*; Sussex ditto, in pockets, 5*l.* 10*s.* to 6*l.* 15*s.*; and ditto, in bags, 3*l.* 15s. to 5*l.* per cwt.—*July* 20.

The speculations in the hop trade continue with unabated vigour, parties making their representations of the state of the bines, and the probability of their being any thing like a crop, in such a way as will best suit their speculative purposes. The following may be relied upon as being correct with regard to the state of the growth in the places named. In what is called the Weald of Kent, that is, in the districts of Canterbury, Sittinghourne, Cranbrook, Goudhurst, Tenterden, Marden, Benenden, Rolvenden, Brenchly, and part of Yalding, there certainly will not be a pocket to an acre. In the neighbourhood of Tonbridge and of Seven Oaks, they are very bad, and there will be little or no produce. The best appearances for a crop are in the neighbourhood of Maidstone, Coxheath, Lenham, East and West Farleigh, Bannin, Wateringbury, and part of East and West Malling; but even there there may yet be a failure. In the Sussex districts, that is, Staplehurst, Wadhurst, Ticehurst, Northiam, Rye, Udimore, Playden and Ewhurst, there will not be half a bag. In the North Clay districts, those of Newark, Retford, Southwell, and Ollerton, the duty will not amount to one hundred and fifty pounds, and they have paid three thousand. The counties of Hereford and Worcester will not pay more than 2,000*l.*, and they can pay, in what is considered a good year, 60,000*l.* The betting at present is on 30,000*l*, some will back 32,000., but that is the outside.

[*Brit. Far. Mag.*

(Extracts from the British Farmer's Magazine.)

It is said that in Germany the bee-masters remove their hives from the apiary to the neighbourhood of fields, where buckwheat is sown, while that plant is in flower, in order that the bees may collect the honey which the flowers yield so plentifully. That bees are particularly fond of this honey is well known to every cultivator, but it is attended with one bad consequence, viz: the honey is inferior. No fine-coloured virgin honey (the produce of a first swarm, or a cast,) can be had from a neighbourhood where buckwheat has flowered. The colour is dark, and the honey is said to partake of the high spirituous quality of the seeds so much, that bad effects have followed, especially when given to children.

In Harte's Essays the following passage occurs. It is an extract from one of Bishop Latimer's discourses, preached before Edward the Sixth, and as it relates to the Bishop's own personal history, and is also a just picture of the ancient yeomanry, and moreover shows the familiarity with which a king might be addressed in those days, it is curious.

"My father was a yeoman, and had londes of his own; onlye he had a farme of three or four pound by yere, at the uttermost; and hereupon he tilled so much as kepte halfe a dozen men. He had walke for a hundred sheps, and my mother mylked thirty kine. He was able, and did find the kyng a harnesse, with himselfe and hys horse, whyle he came to the place that he should receyve the kynge's wages. I remembre that I buckled hys harnes, when he went into Blackheath felde. He kepte me to schole, or elles I had not been able to have preached before the kynge's majestie now. He marryed my sisters with five pounde, or twenty nobles a pece; so that he brought them up in godliness and fear of God. He kepte hospitalitie for his pore neighbours, and sum almess he gave to the poore, and all thys did he off the sayd farme." This sermon was preached about 1550.—*Weston.*

HOUSING CORN.

Mr. Skinner. *Mount Clare, Oct.* 26, 1829.

Sir,—I cannot refrain from relating to you some few facts, in addition to those inserted in your most interesting American Farmer of October 17, 1828, relating to the housing of corn with the husks thereon: On the 22d instant I began pulling my new crop; there had been some old corn left in the house with the husks on, which kept in the highest perfection. This, for the purpose of removing it, was husked, and in the act of removal, it shattered very much from the cob. I therefore conclude, that if the said corn had been husked out in the common way last November, all this shattering and more too would have taken place through the summer, and strewed the corn-house floor with the grain, which would have been measurably lost: So that thus keeping the corn until wanted, through the season, with its coat on, is like keeping it, that is, each ear in a little bag, and preserving it both from shattering and in a great degree from the rats and other rogues, as also from the wevil; for I must observe now as I formerly did, that the only part of my last year's corn in the husk, now fly-bitten, is that which was not covered out to the end of the cob by the husk, and of this but a few grains.

Very respectfully yours,
James Carroll.

HORTICULTURE.

Morning Star—Inquiry Answered.

Linnæan Botanic Garden,
J. S. Skinner, Esq. *Oct* 24, 1829.

Sir,—In your paper of the 25th ult. I see an inquiry as to what tree it is that Mr. Cobbett calls "*Morning Star.*" I had the same inquiry made of me by Professor Drown, some three years since.—My reply was, that when Mr. C. resided on this island, where he saw and described the tree referred to, he lived next neighbour to two very accomplished and sentimental ladies, noted also for their "love of flowers," and that I presumed it was a fancy name they had given to the tree, which I considered must refer to the Cornus florida, or large flowering dogwood, of our forests. Seeing the ladies some time thereafter, I asked them the question, and told them what I had stated; and they remarked that I was perfectly correct in my conclusions.

Yours, most respectfully,
William Prince.

Palo de Vaca, or Cow Tree of Caraccas.

Linnæan Botanic Garden,
J. S. Skinner, Esq. *Oct.* 26, 1829.

Sir,—I have to communicate to you, the information that the highly interesting tree called the *Palo de Vaca*, or *Cow Tree of Caraccas*, has been obtained, and is now growing in my hot-house. This tree has been a great desideratum with the London Horticultural Society, and with other societies of the kind in Europe, and they have for years been endeavouring to obtain it, and I am not yet aware that they have succeeded.

In your paper of Sept. 11, you have given a detailed description of this highly interesting tree.

Yours, very respectfully,
William Prince.

Great Produce of Pumpkins.

Taylorsville, Hanover Cy. Va.
J. S. Skinner, Esq. *October* 28, 1829.

Sir,—I yesterday weighed the produce of *three pumpkin vines*, raised in my garden, and among a crop of beets. There were forty-three pumpkins, that came to perfection, which weighed 1899½ lbs.; besides there were a number that did not ripen. Sixteen of the largest weighed as follows: 67¼, 67, 66, 66, 66, 64½, 63½, 63½, 63, 62½, 62¼, 62, 60, 56¼, 52 and 50 lbs. I never before noticed the weight of the produce of a vine, and take the liberty of asking you if you ever did, and what was the greatest weight. I have known a single pumpkin to weigh 82 lbs.; it was raised a good many years past, in this neighbourhood, by Col. Wm. O. Winston.

Wm. W. Taylor.

THE DAHLIA.

The present season has been very favourable for this and many other flowers. A few days ago, previous to the frost, we stole away from weightier cares to inhale the healthy and odoriferous breezes of Flushing. In the garden of Mr. Prince, we were very much surprised and delighted to see his noble collection of dahlias, which consists of upwards of a hundred varieties: there was the splendid George the fourth, who, in this age of liberal opinions, condescended to display his monarchical glories in a republican atmosphere; the couleur de rose, the pompone, and the queen of Naples, three new and very beautiful kinds—the flowers are small, but the leaves being quilled, give them a decided air of elegance; a new and brilliant chrome yellow, which exceeds all the yellows we ever saw in a flower; the Henrietta, also new and small, is an amber yellow, deepening in colour from the centre to the circumference, flowers in clusters, and has a close resemblance to a chrysanthemum; an endless variety of reds, some of them very fine, such as the Elizabeth eclipse, and some others; a beautiful cherry-coloured, ranunculus-shaped flower; some charming violet colours and pure white: indeed, there appeared to be every colour but blue, which never has been, and probably never will be in a dahlia; but the most magnificent of all this class of flowers is the Alexandrina victorina, which grows from ten to twelve feet high, and bears a profusion of grand and gorgeous carmine-coloured flowers. The *princely* proprietor presented us with a splendid bouquet, which contained a choice flower from almost every dahlia in his collection, and which would have well repaid a journey of ten times the distance.

[*New York Mirror.*

POLE BEANS—DISHLEY SHEEP.

Mr. Skinner: *Cumberland, Va. Oct.* 15, 1829.

I take the liberty of sending herewith a few pole-beans, which I esteem of peculiar excellence; though it is highly probable you may have long been acquainted with their kind and character—their peculiar properties are, they have no *strings*, are perfectly tender even when yellow or ripe—they ought to be fully grown, and filled up before they are gathered for the table, at which time they will boil perfectly tender, as much so as a young shoot of asparagus, and will be found peculiarly rich and succulent. They are very productive when planted with corn on low, rich, sandy land, or they will answer well planted on any good garden soil, and in this case they ought to be provided with poles four and five feet in length, with the branches or brush left on them, so that the vine of the bean may have an opportunity of running in every direction without being too much crowded.

I wrote to you some time since, in relation to the practicability of my procuring a couple of young Dishley ewes, (*pure blood*) and at what rates they could be obtained, delivered in Fredericksburg or Richmond. Yours, with sincere regard,

J. Kirkpatrick.

[We really wish that some one who has this breed of sheep unmixed would state in this paper, precisely, for what price they will be willing to put them on board the steam boats, or deliver them to wagons in this place. Inquiries have been very numerous, and although we know different farms where the race *has been pure*; we do not *know* that they have been kept so—and it is utterly impossible for us to make purchases, much less to attend to the undefinable yet troublesome details of reception and *shipment.* We think it probable that a person owning a flock of the pure Dishley (or Bakewell) near this city would find a certain sale, for thirty annually, at $12 each, put on board a boat or wagon with the necessary food. Every day convinces us of the necessity of PUBLIC FAIRS on given days in spring and autumn every year, for the sale of stock cattle, mules and breeding stock of every kind!!]

(From the New England Farmer.)

PLANTING FRUIT TREES ON THE SIDES OF HILLS.

Dodart first observed that trees pushed their branches in a direction parallel to the surface of the earth. If a tree stands on a steep, it pushes both towards the hill, and towards the declivity; but on both sides it still preserves its branches parallel to the surface. As there is an attraction between the upper surface of leaves, and light, I am also persuaded, though not equally certain of it from experiment, that there is an attraction of the same nature between the under surface of leaves and the surface of the earth. This I consider as the cause of the phenomenon.

I had long observed that the most fruitful orchards, and the most fertile trees, are those planted on a declivity and the steeper it is, though not quite a precipice, the more fertile will they prove.

It is well known that the spreading of trees always renders them fruitful. On a plain, however, they incline to shoot upwards; and therefore, art is called in by skilful gardeners, and applied in various ways to check their perpendicular, and to promote their lateral growth. But this point, which can only be gained on a plain by art, is obtained on a declivity by nature. There a tree loses its tendency to shoot upwards, and in order to preserve its branches parallel with the surface, is constrained to put them in a lateral direction.

Hence an important rule in the choice of orchards and gardens.

SUGAR FROM BEETS.

The manufacture of sugar from beets, which was introduced into France by Napoleon in 1811 and 1812, has increassd to suchan extent, that there are now nearly 100 sugar manufactories in that country, producing an annual amount of 5,000,000 kilogrammes, or 4,921 tons. In Picardy alone, the number of manufactories is 25. While the price of refined sugar in Paris is 11¼*d.* sterling per pound, the manufacture is profitable. It is estimated that one half of all the sugar consumed in Paris, and one eleventh of the total quantity consumed in France, is made from beets. For whiteness and beauty, it is said, when refined to be unequalled by any other. "Bulk for bulk, however, the refined West India sugar, is sweeter than the refined beet sugar; but weight for weight, the two are equally sweet." The discovery of sugar in the beet root was made by the celebrated German chemist Maregrave, and announced to the public in 1747. [*N. Y. Jour. Com.*

INTERNAL IMPROVEMENT.

(From a late English paper.)

Trial of Mr. Gurney's Steam Carriage.

The following observations occurred upon an investigation of the steam carriage of Mr. Gurney, at Sir C. Dance's, near Watford, July 22d, 1829:—

This carriage is not intended for the conveyance of passengers or baggage, but is intended exclusively as a drag, by means of which a carriage with passengers is to be drawn along the road at a rate of from eight to ten miles an hour.

The steam carriage has four wheels, and contains, besides the engine, a seat for two persons; the one being the engineer, the other the steersman.

The engine is upon the principle of the high pressure, and the piston works horizontally under the bed of the carriage. The motion is given by means of a crank attached to the axle of the hind wheels, and is so managed, that the power may be communicated to one hind wheel exclusively, or be extended equally to both, if required.

The mode of action is therefore thus far different from that which governs an ordinary carriage, as instead of being drawn forwards by a power in front, this machine is pushed forwards from behind by means of power impressed upon the axle of the hind wheels.

The machine is steered by means of a horizontal wheel fixed in front of the seat, and communicating with an axle of the fore wheels in such a manner that the carriage may be directed with greater precision than any carriage drawn by horses, under the direction of a coachman.

The machine can be stopped instantly. The length of the machine is the same as that of a four wheeled carriage without the pole, about ten feet, so that when a carriage with passengers shall be affixed to it, the whole length of the two carriages taken together, will not exceed the length of one four wheeled carriage, with one pair of horses.

The friction of this upon the road will be that of a carriage with eight wheels, but it is presumed that the number of wheels may be easily reduced to six.

This engine moved upon the turnpike road up a hill of more than ordinary steepness, and round several turnings, for at least half an hour, at the rate of from 8 to 10 miles an hour.

A barouche containing four people, (of whom the writer of this article was one,) was then attached to it, and was drawn along with great facility, upon the same road, and round the same turnings, avoiding the steepness of the hill, at the same rate.

The engine being of high pressure, and therefore expending its steam, necessarily consumes a large quantity of water and of fuel, and which renders a supply of water, indispensable at every half hour, and a supply of coke at every hour, so that depots of each must be established at proportionate distances of 4 and 8, or 5 and 10 miles, according to the rate of speed to be determined upon.

The noise of the steam carriage, with the passenger carriage attached to it, is not so great as the noise of a travelling carriage with two horses.—There is very little or no smoke from the burning of the coke.

The eight wheels of the two carriages cause less dust than would a carriage with four wheels and two horses.

The danger to be apprehended from an engine upon the principle of high pressure, appears to be altogether obviated by the manner in which the boiler is made, not in one capacious cavity, but formed of a series of tubes communicating with each other.

The expense at which this apparatus can be plied upon the road, is stated not to amount to threepence[*] per mile.

It is evident that before this mode of conveyance can be brought into use for public convenience, depots of water and coke must be established at fixed stations along the line of road which it is intended to travel, and that its use must be confined to that line, and to that exclusively.

It should seem that each fresh supply of water and coke need not occupy above two minutes of time.

One very serious difficulty will be opposed to the general use of this mode of conveyance, in the danger which will attend its unusual appearance and rapid movements along a public road in frightening horses, both saddle and draft.

Upon the whole, the impression which this inspection has left upon my mind, and giving due weight to the many difficulties and accidents which must unavoidably attend the introduction and first trials of such a novel and extraordinary vehicle, it certainly appears to me that it will eventually, and at no distant period, force itself into very extensive use; and I do not see any other objections to it than such as may be overcome by time, practice, and ingenuity.

(Signed) J. W. G.

Horse Guards, July 23, 1829.

LADIES' DEPARTMENT.

ECONOMY IN A FAMILY.

There is nothing which goes so far towards placing young people beyond the reach of poverty as economy in the management of their domestic affairs. It is as much impossible to get along without it, as it would be to get a ship across the Atlantic with half a dozen butts started, or as many bolt holes in her bottom. It matters not whether a man furnish little or much for his family, if there is a continual leakage in the kitchen, or even in his parlor, it runs away he knows not how, and that demon *waste* cries for more, like the horse leeches daughter, until he that provides has no more to give. It is the husband's duty to bring into the house and it is the duty of the wife to see that nothing goes wrongfully out of it—not the least article, however unimportant in itself, for it establishes a precedent—not under any pretence, for it opens the door for ruin to stalk in, and he seldom leaves an opportunity unimproved. A man gets a wife to look after his affairs, to assist him in his journey through life, to educate and prepare his children for a proper station in life, and not to dissipate his property. The husband's interest should be the wife's care, and her greatest ambition carry her no farther than his welfare and happiness together with that of her children. This should be her sole aim; and the theatre of her exploits is in the bosom of her family, where she may do as much toward making her fortune as he possibly can in the counting room or work shop. It is not the money *earned* that makes a man wealthy; it is what is saved from his earnings. A good and prudent husband makes a deposit of the fruits of his labor with his best friend, and if that friend be not true to him, what has he to hope—if he dare not place confidence in the companion of his bosom, where is he to place it. A wife acts not for herself only, but she is the agent of many she loves, and she is bound to act for their good, and not for her own gratification. She should care nothing for the public applause, who has neither occasion or right to solicit it. Her husband's good is the end at which she should aim, his approbation is her reward. Self gratification in dress or indulgence in appetite, and more company than his purse can well entertain, are equally pernicious. The first adds vanity to extravagance—the second fastens a doctor's bill to a long butcher's account—and the latter brings intemperance, the worst of all evils in its train.

There is also such a thing as being over-prudent in small matters, and over-careless in larger ones, that should be guarded against.—Save not at the spigot while you waste at the bung. Let not a sense of poverty pinch you up at one time, and the idea of wealth make you extravagant at another. These matters should be managed with a steady and even hand; not as the business of a month or year, but through a person's whole life. As poverty is always ready to come, so should it always be guarded against; but in doing this let no one be so penurious as to make them *mean.*—There is neither occasion for, nor reason in this; but the one evil is nearly equal to the other; and if it does not make the husband a bankrupt, lowers him in the estimation of the public and makes him what the wife would never wish to see in one she loves or respects. There is a medium course to be pursued in order to secure domestic peace and permanent happiness.

This advice is homely and unfashionable, but it will wear and stand the test of time, when those who would advocate a different course of conduct will be forgotten, or what is worse detested. The giddy crowd which flutters out its short period of summer, stands not the first frost which speaks the coming winter of adversity; and their painted wings which fan the summer air keep out no cold—feed no families—give no bread to a hungry child—light no fires to warm the benumbed fingers of a mother. They will do for a season, be admired for a brief space, be bowed to by the unthinking and foolish, and—*die.* [*Prov. Gaz.*

RIGHTS OF WOMEN.

In the last Richmond Enquirer there is a most earnest appeal to the State Convention now sitting there, in behalf of the rights of the women of Virginia. How can the Convention resist it? How can they answer all the questions asked in it in a breath, and with a volubility which proves that the sex are the very persons for Congress Hall! How can we answer for that conquest in right of which, says the fair writer, we tyrannize over them? By the way, what is the date of this conquest? We hope the Executive of Virginia will take measures to quell the revolutionary spirit which is but too evident in this address, some extracts from which we subjoin.

"If it were left to me to choose, I would rally every Virginia woman under my banners, and like the Roman matrons, would repair in a body to the Senate house, and demand to be heard. Why are not our claims respected? It is the old story of the *man's* being the painter—instead of the *lion*—Could the lion wield the brush, you should hear the rights of the other party painted as they ought to be. But, as it is left for weak and powerless woman to vindicate her own rights, will you permit me to offer a few brief considerations to your lordly members of the convention in favour of her innocent and proscribed sex?

Why are we proscribed? Why are we denied the privilege of voting? Why are we eternally to be kept in the bondage of a despotic government?

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[*] The distance between London and Southampton is about eighty miles, and the inside fare by coach is 1*l.* 12*s.* If it be true that the steam carriage will work this distance with ease in ten hours at the latest, the cost to the proprietors will be exactly 1*l.* Now if this machine can convey twenty passengers, and if each passenger should pay only 6*s.* or about one fifth of the present sum, there would be a clear profit to the proprietors of 500 per cent.

'Have *we* not eyes? have *we* not hands, organs, dimensions, senses, affections, passions? fed with the same food, hurt with the same weapons—subject to the same diseases, healed by the same means, warmed and cooled by the same winter and summer, as a *man* is? if you prick us, do we not bleed? if you tickle us, do we not laugh? if you poison us do we not die? and if you wrong us,' shall we not, (no not revenge!) but assert our rights, and expose your gross injustice?

"Aye! injustice; gross, flagrant injustice! You are born stronger than we are; and that is the only advantage you have over us. Nature has endowed you with more *physical brute strength;* and upon that foundation you raise up all your boasted pretensions. You can beat us, and therefore you make us your slaves. All your pretended *right* resolves itself into *might.* It is the law of tyrants; the triumph of the strong over the weak—and upon this honourable basis you raise the standard of your power.—Having conquered us, you shut us out of the great means of improvement. You are acting the part of other discreet conquerors. You first subdue us by force, and then by keeping us in ignorance, you attempt to perpetuate your own power, and make us your slaves. This is the history of all despotism; and upon this wise and noble hint you have *justly* acted!—Have you any better reasons for your usurped dominion?

"You say we have not intellect enough to vote, and assist in the government. Where are the proofs of your superiority? You keep us in ignorance—and then you boast of your superior attainments. You make us embroider for you; thrum upon the guitar or piano; draw sketches of your lordly faces; convert us into spinsters and seamstresses, to make your garments; but you exclude us from your best schools.—You prevent us from cultivating science, studying politics, improving our understanding, and then you insist upon our ignorance as the evidence of our mental incapacity—forgetting, that we rank among our sex the De Staels and Daciers of France, and the Mores and Edgeworths of England and Ireland.—Think you, that we have not as much native strength of mind to give our votes properly, as more than half of your sovereign sex? And that with a little advantage of education, we could select fit officers as well as you can?

"You boast too, of your superior independence of mind.—You say, that you alone can exercise the right of suffrage, firmly and freely. Indeed! and what say the disfranchised non-freeholders to this arrogant assumption—and what ought *we* to say to it? That it is not founded in truth—that if we enjoyed greater opportunities of improvement, *we* too, who know how to make you lords of the creation tremble at our feet, could think, and feel and act for ourselves, in matters of government, with as much independence as you do. Make us feel our consequence more, and we shall know better how to value and assert it."

MISCELLANEOUS.

Dietetic Regimen in France and England.

What is ordinarily called the influence of climate on the human species ought, in our opinion, to include the effects of the customary aliment which necessarily varies with the geographical situation of each country. Thus, in the north, the stomach calls for animal food and the excitation of spirituous liquors; whilst, in southern regions, bread and fruit only are used, and irritating drinks studiously avoided. The French are more sober than the Germans, because the mild temperature of their country enables them to substitute wine for the beer or distilled liquors of their neighbours. Under the burning sun of the Spanish peninsula, oranges, citrons, and a multitude of other fruits, abounding in juice, attain a maturity unknown in France, and the refreshing and delicious drinks of Spain render the inhabitants still more averse to the effects of spirituous stimuli, while at the same time they care less for wine.

Madame de Stael attributes the severe character of the gloomy mythology of the northern nations to the perpetual fogs and rigorous winters of their climate, and she is perhaps right to a certain extent; but are not these distinctive traits rather the effect of that dulness of intellect so evident in those persons habitually accustomed to the use of violent excitants?

The inhabitants of the south are, on the contrary, gay, lively and witty, independent of external objects, and much more disposed than the inhabitants of the north to seize upon the frivolous and transitory pleasures which at every moment are presented to them. The Frenchman always evinces a disposition to enter into a hundred trifling projects of pleasure, which the Englishman pretends to despise, while he secretly envies that pliancy of disposition which the climate of his own country denies him: haughty, and impatient, he only loses his heaviness when *porter* has rendered him inconsiderate and querulous. The extraordinary differences which we observe in the manner of living among the modern European nations, have been principally produced by the use of tea, coffee, sugar and tobacco; their introduction into common use is one of the most singular conquests of commerce. Who would have supposed, three centuries ago, that the products of China and the West Indies would one day become the habitual aliment of the inhabitants, and the servants even of the rustic population?

The following table, drawn up from authentic documents, may explain, to a certain extent, the difference of manners observable between the two greatest nations of Europe:

Quantity, of Sugar, Tea, etc. annually consumed in Great Britain and France.

		England.	France.
Sugar,	lbs.	448,000,000	128,000,000
Tea,	"	22,750,000	195,000
Coffee,	"	8,100,000	20,100,000
Tobacco,	"	16,900,000	7,200,000
Wine,	galls.	6,210,000	700,000,000
Spirituous liquors,	"	28,020,000	5,700,000
Beer,	"	420,000,000	155,000,000

But to be able to draw conclusions, we give, as follows, the relation which the consumption bears to the population of each country:

		For one million.	
		English.	French.
Sugar,	lbs.	22,400,000	4,270,000
Tea,	"	1,137,000	6,500
Coffee,	"	405,000	670,000
Tobacco,	"	845,000	273,000
Wine,	galls.	310,000	23,300,000
Liquors,	"	21,000,000	5,170,000

We have selected and translated the preceding article from one of our French medical journals, as calculated to interest the general reader. We hope to be able, on a subsequent occasion, to present a sketch of the proportion of the above articles consumed in the United States, accompanied with such reflections as naturally pertain to the subject of regimen. [*Phila. Jour. of Health.*

TRADE IN CHARCOAL.

[If this trade in charcoal can be prosecuted with so much profit by persons who burn and transport it from twenty miles by land, beyond Camden in New Jersey, why might it not be more advantageously engaged in by our land-holders on the very margin of rivers that empty into the Chesapeake, and transported through the Delaware canal to Philadelphia? We should be glad to see the calculation made, and wish to the heavens some sure channels of labour could be found to break the monotony of the old round, and afford more profit than wheat, corn, tobacco, and cotton.]

Few of our citizens, although they are eternally beset by charcoal jemmies, have any idea of the extent to which this business has already arrived in Philadelphia. Not less than eighty wagons are daily in our streets vending this now indispensable article of fuel, and each teamster generally contrives to sell out his load during the day. A load is worth ten dollars wholesale, or about fifteen dollars if retailed out by the barrel. Thus, if eighty loads are sold daily, at ten dollars each, we have an amount equal to eight hundred dollars, expended every day in this city for charcoal. The sum may appear too great to be correct; but we are assured by those well acquainted with the trade, that it is a fair estimate; and indeed, when it is remembered how perpetually our streets are thronged with wagons, at all hours in the day, the sum will not be thought exaggerated.

The profits realized by burning and selling of charcoal are enormous. Out of a load which sells for ten dollars, a profit of five dollars is made, clear of all expenses: and when it is retailed at 28 to 31 cents a barrel, an additional gain of about two dollars on the load is the result. If this profit is realized now, how enormous must it have been last winter, when charcoal was scarce at half a dollar per barrel. Several individuals had large yards filled during the summer, in expectation of the winter's demand, when the closing of the navigation would cut off all additional supplies from Jersey. As fuel became scarce, they demanded the extortionate price of half a dollar per barrel, and received it for nearly the whole amount of the immense stock they had on hand—thus, realizing, out of the distresses of the people, a most exorbitantly unfair profit.

The impositions practised upon our citizens by the venders of charcoal, have been frequently complained of in the newspapers, and are well known to house-keepers generally; yet no measures have been taken to regulate the sale of the article, and thus to do away their dishonest tricks. We have known instances where gentlemen have engaged from ten to twenty barrels of a man in the street, at 28 cents per barrel, and sent him to the purchaser's house, with directions there to be paid. The wagoner, on delivering the charcoal, has demanded, and insisted on receiving 37 cents from the lady of the house, saying that was the price which her husband had agreed to pay.

So great and undiminished is the demand for this new article of fuel, that snug fortunes have been already realized by several individuals in and near Camden, while others, but recently embarked in the business, are rapidly arriving at the same desirable goal. The burning process is carried on in every direction around Camden.—Some manufacturers are located as far distant as twenty miles from the same place, in the heart of the dense pine lands of New Jersey; yet, with all the expense attending the transportation of an article so bulky, an enormous profit is still realized on the sale of it. We look upon the introduction of stone coal as the main cause of starting this new business. Thus the state of Pennsylvania, while she enriches herself from new resources, existing altogether within herself, scatters a large portion of the funds realized by the coal trade, into the hands of her less fertile sister state. Indeed, the discovery of anthracite may be considered of nearly as much *present* advantage to New Jersey, as that discovery is to Pennsylvania herself. Yet, while it creates a steady demand for these forests of pines, which but a few years ago were wholly useless, it affords, as an offset to the golden shower now rained down upon her, the gloomy prospect of laying bare the barren fields on which her forests flourish, unfit for cultivation, and for the next half century, incapable of yielding even a second crop of pine. [*Saturday Bulletin.*

LEAD AND IRON.

The lead miners and the iron masters, have lately discovered flaws in the American system as it now stands, which they will no doubt make efforts to repair at the next session of congress. It has been ascertained that lead ore, as it pays no duty, can be imported into this country from Europe, and sold at 2 cents per lb. yielding 83 per cent. of pure metal. This, it is thought, will defeat the protecting duty of 3 cents per lb. It has also been ascertained that rail road-iron, which is a species of bars, is only liable to a duty of 25 per cent. while bar iron, properly so called, is subject to 37 dollars per ton, which is 100 per cent. or more, on the first cost. It is thought, that as soon as the blacksmiths and other manufacturers of iron generally discover, that the rail-road bars, which are as well adapted for many purposes, as the ordinary bar iron, can be imported and sold at 60 to 65 dollars per ton, whilst the other costs 80 dollars or more, the consumption of it will interfere with the domestic production.

[*F. T. Advocate.*

LEAD.

Imports of lead and its manufactures for the year 1828.

Bar, sheet, and pig,	lbs.	8076796	valued at $294563
Shot, - - - -		88543	8981
White and read lead,		8087565	186852
Leaden pipes, - -		123370	7115
Litharge of lead, -		718873	28732

Of these quantities there was re-exported under the drawback system:

Bar, sheet, and pig lead, - -	$2534086
Shot, - - - - - - -	56980
White and red lead, - - -	111141

Leaving a balance of each to be consumed in the United States. But these may be considered the last importations, as the domestic supply will equal the demand, and keep the price sufficiently low. It is now lower at this place than the *duty.* The duty is 3 cents a pound on crude lead; the article is selling in this place for about 2½ cents. At the mines on the Upper Mississippi, the current price is two cents, but many sales have been made at $1.75. The government rents ought to be reduced one half or more. The miners cannot stand a rent of ten per cent. at the present price, or any price lead is likely ever to have again. Many are already quitting the mines. As for the rents, they are no object compared to a cheap and abundant supply of shot, sheet lead, leaden pipes, and red and white lead for paints. Every man in the Union, rich and poor, high and low, is benefited by the cheap and abundant supply of these articles; but the rents are nothing in a national point of view. The payment of expenses is all that the government should look to in giving out their leases. Paints are now $3 a keg, which cost $6 a few years ago. At this price the use of paints would soon become universal in all parts of the country—upon farms as well as in towns and cities—adding so much to the beauty and durability of houses and fences.

[*St. Louis, (Missouri,) Beacon.*

A MAN OF WAR.

There does not perhaps exist a more prodigious and wonderful combination of human industry than is visible on board a first rate man of war. A vessel containing 1,000 men, and 100 pieces of heavy ordnance, and bearing them safely to distant shores. In twenty-four hours a man consumes about eight pounds of solids and fluid, consequently 8,000 lbs. provision are required daily in such a ship. Three months then, require that she be laden with 720,000 lbs. of provision. A 42 pounder weighs 6,100 lbs. 30 of these are generally on board a ship of 100 guns, the weight of which exclusive of carriages amount to 183,000 lbs.; 30 twenty-four pounders on the 2d deck, each weighing 5,100 lbs. all weighing 153,000 lbs; on the lower deck 28 twelve pounders, amounts to 75,400 lbs.; on the upper deck 14 six pounders to about 26,000 lbs.; besides on the round tops 3 pounders and swivels. If to this, we add, that the complete charge of a 42 pounder weighs about 64 lbs. and that 100 charges to each gun are required, we shall find this to amount nearly to the same weight as the guns themselves. Against exigencies, every ship must have another set of sails, cables, cordage and tacklings, which altogether, amount to a considerable weight. The stores also of plank, pitch, and tow; surgeons and and sailors' chests, small arms, &c. make no inconsiderable load to which we must add the weight of the crew, so that one of these large ships carries at least 2,152 tons burden, or 4,324,000 lbs.; and, at the same time, is steered and governed with as much ease as the smallest boat. [This is the description of a first rate man of war in the last century, since which the wonder has grown.]

STRATAGEMS OF THE TOM-TIT.

The wiles and stratagems of every creature are deserving of attention, because they are, for the most part, the impulse of the weak and feeble, instinctive efforts to preserve their own existence, or more generally to secure or defend that of their offspring. Few are able to effect these objects by bodily power; but all creatures, probably, exert a faculty of some kind to ward off injury from their young, though not observed by, or manifested to us. This poor little blue tom-tit, which has neither beak, claws, nor any other portion of strength to defend itself from the weakest assailant, will, nevertheless, make trial by menace, to scare the intruder from its nest. It builds almost universally in the hole of a wall or a tree, and its size enables it to creep through so small a crevice, that it is pretty well secured from all annoyances but those of bird-nesting boys; and these little plunderers the setting-bird endeavours to scare away by hissing and puffing in a very extraordinary manner, from the bottom of the hole, as soon as the finger is introduced; and so perfectly unlike the usual voice of a bird, that many a young intruder is deterred from prosecuting any farther search, lest he should rouse the vengeance of some snake or adder.

Extraordinary Voracity of a Shark.

When the present Rear Admiral Sir Henry Heathcote commanded the Galatea frigate on the West India station, he happened to have on board as his own cook, a blackman, who had in the same capacity served Lord Nelson. Poor Sambo sickened and died, and was, with the usual honors of sepulture, committed to the bosnm of the deep, encased in his hammock. In a day or two the Galatea sailed on a cruise, and after an absence of three months returned to Jamacia, and let go her anchor about the same spot she had before occupied. Soon after a large shark was taken by some of the ship's company, who, on chopping up the monster, discovered the remains of poor Sambo, the cook, enclosed in his maw, whose identity was proved beyond a doubt by the number of his hammock, and a pair of silver shirt buttons, which he was known to have worn. The shirt buttons were presented by Sir H. Heathcote to the hero of Acre, Sir Sidney Smith. The whole of it was recorded in the log-book of the Galatea.

THE FARMER.

Baltimore, Friday, November 6, 1829.

☞ Nice Calculation.—A writer in the August number of the British Farmer's Magazine, says that in Sussex county, England, there were more wether than ewe flocks kept, *because* from the hind feet of the wethers having to pass over their urine they are considered *better manurers* than ewes. The same writer adds that the fattening property of oil cake was thus curiously discovered:

"It is a practice with those flockmasters and graziers of Sussex, who reserve or buy in more lambs than they can conveniently winter upon their own farms, to put them out, to be kept by the weald farmers, &c., upon their rowings and other grasses, from October to the middle of March, at the rate of from 3s. 6*d.* to 5*s.* per head for the whole time, which practice is said to have been the means of discovering the fattening qualities of oil cake. The tradition signifies that a weald farmer manured a mowing grass field with oil cake, and *not dreaming* that they would eat the manure, subsequently turned some tegs he had taken to keep into it, but soon finding that both grass and manure had disappeared, he sent to the owner to take away his sheep, intimating that they *were devils in sheeps' clothing,* for they had eaten all his grass and manure, and had begun upon his soil itself. The tegs, it asserts, were taken home, and, on being handled, found to be very fat."

The same writer adds, on the subject of sheep husbandry: "Single folding is, at this time, valued, on the average, in Sussex, at about 45*s.* per acre, which 1000 ewes will fold in one night; but there exists in the county a wide difference of opinion as to whether the bare and portable, or standing and littered fold, is most profitable. Mr. Arthur Young, in his Farmer's Tour, gives an instance of 134 ewes and 30 lambs having made, at *Youngsberry,* in a standing fold, littered with five loads and three quarters, or five loads and 40 trusses of oat straw, 28 loads of dung, worth 10*s.*, now full 12*s.* per load, in six weeks, for the purpose of manuring for barley.

"The average weight of the pure South Downs flock ewe fleece is about 2 lbs. 15 oz., it varying between 2½ lbs. and 3 lb. 6 oz., the lighter and finer fleece invariably growing on the lighter soil, and consequent fine textured herbage; but the existing low prices of fine British wools are said to have induced some of the flockmasters to the experiment of trying coarser woolled breeds."

☞ The Philadelphia papers inform us that the Chesapeake and Delaware canal is in full operation for vessels drawing seven feet water, and they add, will afford the means of obtaining for *wood,* an excellent market in Philadelphia; and much better prices than at Baltimore.

Owing to the inadequate supply of coal, wood is daily rising here. Pine now commands $4 per cord: oak $5.50, and hickory $7. The toll charged on wood by the Canal Company, is only fifty cents per cord. For their return cargoes, they would find an excellent supply of first quality limestone and lime at the Schoylkill wharves, and in their immediate neighbourhood. The brickmakers would gladly exchange their brick for the article they now much need, pine and oak.

Contents of the American Turf Register and Sporting Magazine, No. 3, for *November*, 1829.

Engraving *of a Celebrated Pointer Dog*—Memoir of Sir Solomon—Admeasurements of Sir Solomon and Eclipse—Arab, departure for Tennessee, his character as a racer—Sale of thorough bred horses—King Herod, the English horse, his pedigree and performances—Shark, notice of—English racing regulations—Trotting at Philadelphia—Spread Eagle, notice of his get—Back galls, how to treat—Attaint in horses, described, with the cure—Asthma, symptoms and cure—Fox hounds, on their colour, and on breeding them—Stag hunting in Fairfax, Virginia—Hints to shooters—Grouse (pinnated,) their habits, with other observations on—Raven, anecdotes of—The pointer dog, qualities of Col. Thornton's—Song, a shooting one—Patent flask, remarks on—Summer Duck, remarks on certain of its habits—Varnish, to make it water proof—Red fox, natural history of—Trolling for rock fish in the Susquehanna, described—Tree Hill course at Richmond, its situation, police, &c.—**Sporting Intelligence:** Races at Milton, N. C. Norfolk, Washington, D. C.—Trotting at Long Island, on the Hunting Park course—Races at Broad Rock, New Market, Va., Tree Hill, New York, Dutchess county, Baltimore, Hagerstown, Lexington, Ky.—Races to be run—Great price paid for bred colts—Measurement of the Kentucky race courses—**Turf Register,**—Pedigrees.

East View, Nansemond Cy. Va. }
J. S. Skinner, Esq. *Oct.* 24, 1829. }

Sir,—Permit me to inquire through the medium of your valuable paper, the most approved method of cultivating the Arachis or ground pea, that kind of land best suited to its growth, and what may be considered a medium product from an acre.

Yours, very respectfully,
A Young Farmer.

☞ In answer to the inquiry about the *Kentucky horse* **Printer**, from a correspondent in Lexington, Kentucky, we have the following: "**Printer** was not an imported horse, he was foaled in Kentucky, and came here a sucking colt; it is generally supposed that his mother was stolen. From his make and movement I have no doubt he was a very full *Janus.* His stock is speedy from three hundred yards to a quarter of a mile."

Latest Foreign News.

Nothing later from the seat of war than the intelligence contained in our last, has been received, London and Liverpool dates to the 30th September have reached us by subsequent arrivals, and fill up the chain of events to that date.

As to the war there is a great variety of additional articles of news from various quarters of the East, all going very clearly to show that the preliminaries of peace had been signed, and an armistice of ten days granted by the Russian commander, in which interval the conditions are to be ratified. The London Times of the 30th states, in relation to the suspension of hostilities between Russia and Turkey, that all rumors of peace, beyond the mere fact that a suspension had taken place, are mere conjecture; and that there was no formal conclusion of an armistice for a special period, but the Russian General consented to a temporary suspension of hostilities during the progress of the negociations which the Sultan solicited. Should these negociations be broken off, or protracted beyond the patience of the Russian commander, he may resume operations without any formal notice, and in that case the Cossacks would soon be at Constantinople. The pacific disposition manifested by General Deibitsch, however, renders such an event highly improbable.

The Liverpool Albion of the 28th, says—An extensive seizure of tobacco was recently made on board a vessel from New York. The smugglers had adopted a novel mode for the purpose of disguising their contraband merchandise.—The tobacco was in bags which contained, to all outward appearances, cotton; but on opening the bags, the cotton was found only a few inches deep, all the rest being tobacco. The Custom-house officers, who acted on an information, seized, we believe, not fewer than seventeen bags containing cotton and tobacco.

Liverpool Cotton Market, Sept. 30.

The Cotton market opened this morning with a more animated and spirited demand than has been experienced for a considerable time past: sales are estimated at upwards of 7000 bales, 5000 of which have been taken up by the dealers and consumers, and 2000 by the speculators, at an advance of ½ per pound on the price obtained ten days ago.

Liverpool Corn Exchange, Sept. 29.

The imports of Grain have been moderate, the quality of the new Wheats from Ireland appears to be improving; very little new Oats have yet arrived; at this day's market there was a thin attendance of dealers, and sales dull for almost every description of Grain; superior qualities fully supported last Tuesday's quotations.

JONATHAN S. EASTMAN,
Has now on hand and is constantly supplied (at his Agricultural, Horticultural, and Seed Establishment, No. 36, west Pratt street, Baltimore,) with WHEAT FANS of the most approved kinds, made of the best materials, and by good worknem; also, Cylindrical Straw Cutters, of which he is patentee, they are adapted to every kind of long forage, and surpassed by no other machine for the same purpose in any country. Likewise, a full assortment of Gideon Davis' highly improved Patent Ploughs,—the advertiser has recently made some improvement on the Shares of this Plough, which he trusts will be found an important advantage.

Also, Clezy's improved Scotch Plough, and improved Bar Share and Coulter Ploughs, of large size, Cultivators, Patent Corn Shellers, Dutch Cutting Boxes, Brown's Vertical Wool Spinner, Cast Steel Axes, superior Oil Stones, &c. &c.

Likewise, a general assortment of the Messrs. Landreths' Garden Seeds, warranted fresh and good, and at the same prices they are sold for at their store in Philadelphia. Orders will be received for Green House Plants and Bulbous Roots, from the Messrs. Landreth's splendid collection delivered here in good order, at the Philadelphia prices.

Also, Fruit and Ornamental Trees. On hand a good supply of Orchard Grass and Clover Seeds, both warranted of good quality.

P. S. Agents for the above, where gentlemen can leave their orders.

Messrs. Jona. Alden. Philadelphia.
Barr, Auchincloss, & Co. New York.
David J. Burr, Richmond, Va.
Randolph Webb, Raleigh, N. C.
J. C & C. Burckmyer, Charleston.
Dr. W. W. Anderson, Statesburg, S. C.
J. G Herbert, Savannah, Geo.
Stephen Duncan, Esq. Natchez, Miss.

GRAPE VINES, FOREIGN AND NATIVE.
Sixty thousand Vines of the finest varieties, cultivated in the vineyards of Burgundy, Champagne, the Rhine, Tokay, &c., among which are the Imperial Tokay, Blue Tokay, small and large Riessling, small and large Rauschling, Ortliebscher, Rothlichtner, Facun or Bourger, Oliver, &c.—these will be supplied at $25 per hundred, assorted, and plants of smaller size at $20 per hundred.

White or golden Chasselas, St. Valentine, and some other fine table grapes, will also be supplied at $25 per hundred.

The collection of native vines in large quantities, consists of, 6,000 Isabella, 1,000 Scuppernon, 2,000 Catawba, 1500 Alexander's or Schuylkill, 2,000 of the varieties so celebrated at York, Pennsylvania, and called there Madeira and Claret, both natives—500 Elsinburg, 500 Winne, and others in less quantity. The prices for the native vines are stated in the catalogue, but in large quantities, a reduction will be made, except for one or two kinds.

Orders for these or for Fruit trees, Flowering Shrubs, Green-house Plants, &c. left with Gideon B. Smith, agent, at the office of the American Farmer, Baltimore, will receive prompt attention, and catalogues may be obtained of him gratis. WILLIAM PRINCE,
Proprietor of the Linnæan Botanic Garden, N. York.

ALMANAC.

1829. November.		Sun. Rises.	Sun. Sets.	Length of days.	Moon Sets.
		H. M.	H. M.	H. M.	H. M.
Saturday,......	7	6 56	5 4	10 8	2 38
Sunday,........	8	6 57	5 3	10 6	3 48
Monday........	9	6 58	5 2	10 4	4 59
Tuesday,......	10	6 59	5 1	10 2	rises
Wednesday,..	11	7 0	5 0	10 0	5 58
Thursday,.....	12	7 1	4 59	9 58	6 49
Friday,.........	13	7 2	4 58	9 56	7 43

Full Moon, 10th, 8 h. 39 m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—Very little change has taken place in the price of any of our staple articles. The wagon price of Howard street flour is $5.25. Sales of wheat have been made at our quotations. Oats are scarce, and no demand for them. Corn sells readily at quotations. Beef on the hoof is very dull, and a considerable reduction in price will be noticed. As the cold weather approaches, the price of wood increases, and a small advance will be noticed in this article.

Tobacco.—Maryland, ground leaf, $6.00 *a* 13.00—seconds, ordinary, 4.00 *a* 6.00—red, 4.00 *a* 5.00—fine red, 8.00 *a* 13.00, for wrapping 7.00 *a* 12.00—Ohio, common, 4.00 *a* 5.00—good red 8.00 *a* 13.00—fine yellow 25.00 *a* 30.00.—Rappahannock, 3.50 *a* 4.00—Kentucky, fine 4.50 *a* 7.00.

Flour—best white wheat family, $6.25 *a* 6.75—super. Howard st. 5.37½ *a* ——; city mills, 4.75 *a* 5.00; Susquehanna, ——. **Corn Meal**, bbl. 2.37½—**Grain**, best red wheat, 1.06 *a* 1.10;—best white do. .95 *a* .97; ordinary to good, .90—**Corn**, old white, .46 *a* .48; yel. .46 *a* .48; new, 37½ *a* 40—**Rye**, .45 *a* .47—**Oats**, 29. *a* .30—**Beans**, 1.10 *a* 1.15—**Peas**, .60 *a* .65—**Clover seed**, 3.75 *a* 4.00—**Timothy**, 2 *a* 2.50—**Orchard Grass**, 2 *a* 2.50—Herd's, .75 *a* 1.00—Lucerne .37½ *a* .50 lb.—**Barley**, .45 *a* .50—**Flaxseed**, .75—**Cotton**, Vir. .9½ *a* .10 Lou.—.11 *a* .12—Alab. 9 *a*.10—Missis. .10 *a* .12—N. Car. .8 *a* .9—Geo. .9 *a* .10—**Whiskey**, hhds. 1st p. .22½ *a* 23—in bbls. .24 *a* 25½—**Wool**, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22-three-quarter, .25 *a* .30—full do. .30 *a* .50, accord'g to qual.—**Hemp**, Russia, ton, $210 *a* —; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—**Fish**, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, —— *a* 5.50—Herrings, No. 1, bbl. 3.75 *a* 4.00; No. 2, 3 50 *a* 3.75—Mackerel, No. 1, 5.37½ *a* 5.50; No. 2, 4.75; No. 3, 3.75—**Bacon**, hams, Balt. cured, .9 *a* .10; do. Eastern Shore, .12½—hog round, cured, .7 *a* .8—Feathers, .30 *a* .31—Plaster Paris, cargo price per ton, $4.00, ground, 1.25 bbl.—Prime Beef on the hoof, $3.50 *a* $4.25. Pine Wood, by the vessel load, 2.50; by the single cord, 2.62½—Oak Wood, by the vessel load, 3.50 to 3.62½; by the single cord, 3.62½ to 3.75.

CONTENTS OF THIS NUMBER.

Remarks on the Goat and Sheep—British and Foreign Wools—Extracts from Observations on the Rural Affairs of Ireland; or, a Practical Treatise on Farming, Planting, Gardening, &c., by Joseph Lambert, Esq.—Statement of a Trial instituted by the Duke of Bedford, between the Hereford and improved Short Horn breed of Cattle in the ordinary mode of Feeding—The Hop Market in England—Extracts from the British Farmer's Magazine—On Housing Corn—Morning Star, Inquiry Answered—Palo de Vaca, or Cow Tree of Caraccas—Great Produce of Pumpkins—The Dahlia—Pole Beans and Dishley Sheep—Planting Fruit Trees on Hill sides—Sugar from Beets—Trial of Mr. Gurney's Steam Carriage—Economy in a Family—Rights of Women—Dietetic Regimen in France and England—Trade in Charcoal—Lead and Iron—A Man of War—Stratagems of the Tom Tit—Voracity of a Shark—Editorial—Contents of Turf Register, No. 3—Foreign News and Prices—Prices in the Baltimore Market—Advertisements.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

(From Lorain's Practice of Husbandry.)

The merits of convertible Husbandry, united with Soiling, explained and illustrated by a comparative statement of Crops. On Winter Fattening Cattle. Reason assigned why any given space of Grass grounds will furnish much more food for Cattle when the Grass is fed to them in the yard than if they were pastured on it. On the use of Oxen in place of Horses.

Statement of Mr. Shriver's Crops.

64 acres,	242½ bushels of oats at 43 cents,	$104.27
	12½ do. of wheat, barley and oat tailings, mixed, sold for	5 83
	197½ do. of potatoes at 50 cents,	88 50
	36¾ do. of wheat at $1.75 -	64 31
	5½ do. of buckwheat at 50 cents,	2.75
	9 tons of hay at 17.50, -	157.50
	5 do. of corn fodder at $8.00	40 00
	226½ bushels of rye at 80 cents,	181.20
	155 do. of barley at 90 cents,	139.50
	250 do. of Indian corn at 60 cts.	150.00
8 acres	rented to a widow lady, with the old farm house, and an old barn, principally used for pasturing one horse and three cows,	100.00
2½ acres	rented to a negro man, with a small house, - - -	29.16
31½ acres	in pasture, woods, yards and roads. The negro had the garden, which is included in his 2½ acres.	
106 acres.		$1.068.02

Statement of my Crops.

18½ acres,	277 bushels of wheat* at $1.75,	$484 75
	25 tons of superior stubble crop hay at $7.50, -	187.50
15 acres,	1086 bushels of Indian corn at 60 cents, -	651.60
	196 do. of barley at 90 cents,	176.40
	23 tons of corn fodder at $8.00	184 00
¼ acre,	263 bushels of potatoes at 50 c.	131.50
56¼ acres,	130 tons of hay at $17.50	2,275 00
	Received for soiling horses,	72 85
	Sundries sold at market,	37.10
20 acres	in roads, gardens, woods, &c.	
106 acres.		$4,200.20

As cornstalks, straw, &c. are seldom estimated by the full bred farmer, in the valuable amount of his crops, unless he happen to live near a town, where the straw may be sold, I have omitted them in the foregoing statement of my crop, lest the perpetual plougher and cropper might believe I wished to swell the amount. This makes it proper to remark, that when regular farming accounts are kept, the manure account should be debited to the crops of small grain and corn, for the straw and stalks. The latter has been considerd by too many, as an article which costs labour, either to burn them, or plough them up. When the grounds, however, are properly prepared for crops, they will be found by those who try the experiment, fully equal, if not more valuable, than straw, for littering the cattle yard.

It appears from the statement formed above, that nearly a fourfold improvement was accomplished on this farm in the course of five years, from the practice that had been pursued; though many very injurious errors occurred in the course of that practice. These greatly retarded the improvement of the soil, and were equally injurious to the products of it; especially of my fallow crops.

Every farmer who is in the habit of estimating the expense of cultivation, and that of taking his crops to market, may form a tolerably correct opinion of the clear profit which might be obtained from the produce, if subjected to his management.

But unless he were acquainted with the soil, on which these crops were grown, and also with the system of improvement, he could not readily form an opinion of the probable future annual increase of crops arising from an increased fertility of the grounds, and no calculation of mine can determine this sufficiently correct to hazard an estimate. I am, however, very confident that the fertility of the soil would have been very much increased, if the same system of management had been pursued during another round of crops, which would have terminated in the course of five years.

It was very obvious that the grass grounds were generally very deficient in fertility. This was made the more manifest by comparing the vegetation generally, with such spots as had been accidentally more highly enriched, and also with a part of the ground which had not been long enough cleared from its wood to be so much reduced by ploughing and cropping, as the land which had been longer cultivated.

Soiling, united with convertible husbandry, may be practised with equal success by every farmer; provided his cultivation be limited to an extent of clear ground, which will be consistent with his certain resources to cultivate it properly; unless where a range outside of his cleared grounds, furnishes a sufficiency of pasture for his live stock.

If the cultivator be not in debt, and possess a pair of horses or a yoke of oxen, two milch cows, four young cattle from one to four years old, six sheep, and rear as many hogs as are sufficient for the use of his family, he may, with this stock, safely encounter twenty acres of cleared ground, and practise soiling, united to convertible husbandry; provided, himself, with the aid of the workers in his family, or those he can readily hire, and has money to pay, are sufficient to cultivate that quantity of land properly; especially as his live stock will increase with the increased fertility of the soil, if he give proper attention to that interesting portion of his management.

If the rotation of crops commonly practised by me, be adopted, four acres will be annually in manured fallow crops, four in wheat and other small grain, and the remaining twelve in grass.

When the farmer's stock is kept in well constructed yards, profusely littered, the quantity of manure exceeds credibility. Although the greater part of that which is gathered through the winter, consists of vegetable substances, they are well saturated with the rich juices of the cattle yard, which are lost by the improvident farmer. This mass being ploughed under the soil, previously to fermentation, but little can be lost, if the crops be properly cultivated; and the roots of the grasses ploughed under with it, add greatly to the amount. The second and third crops of the grasses, when soiling is practised, may be more profitably mowed and fed green, or in hay, to the live stock, than ploughed under for manure.

Twenty acres of ground will appear, to many American farmers, too little, even for those who actually do not possess the means to cultivate ten acres properly, if soiling be practised. If they, however, would attentively compare the foregoing statements, some of them may alter their opinions; beside other things, which should induce them to do this, they will find the amount of products from the fallow crops grown by me, on fifteen acres of ground only, exceeded in value, the whole produce grown by Mr. Shriver, seventy-eight dollars, which sum would, in most situations, pay the rent of fifteen acres of land. They will also see, by reverting to my description of the cultivation of these fallow crops, that the corn crop was very injudiciously managed.

The quantity of straw, and corn stalks, furnished by the crops, enumerated in the foregoing statement, was estimated at fifty-four and a half tons. These dried vegetable substances, together with the leaves raked from the woods, and other offal vegetable matters that may be gathered, will, when saturated well with the juices of the cattle yard, form a great weight, as well as bulk of manure. If we suppose the offal vegetable matter, gathered in 1811, sufficient, if the cattle, &c. were properly managed, to make fourteen loads of manure, of thirty-two cubic feet each, which were the general size of my loads, it would cost the farmer thirty cents per load in the yard, and seven and a half cents per load for hauling it out to the field, or five hundred and twenty-two dollars for the whole, rating the leaves at the cost of raking and hauling, and the straw and corn stalks at three dollars per ton; also, charging the manure account, with the wages and board of the man and boy, and the labour done by the horse, employed in bringing in the grass.

Thus we see that manure is an expensive article, whether it be bought or made on the farm.

Some writers on husbandry, say, that the profit derived from the sale of the cattle, should pay for the manure. It would seem, however, that if the farmer gets paid for the hay consumed by them through the winter, and the grass eaten by them during summer, that where hay sells at a good price, he must be an excellent judge of the value of store cattle, and their disposition to fatten, and also meet with a favourable time for purchasing them.

But if only the interest on the value of the land employed to furnish the hay and grass, together with the taxes, and other necessary expense, and the cost of cutting, making, and securing the hay, be estimated, it will greatly alter the estimate formed on the value of that article where it sells high; for, if seasons, good and bad, for making hay, be averaged, it may be cut, cured and secured for two dollars and fifty cents per ton, if the management be good; still, if the farmer's or grazier's calculations be formed on these favourable principles, the expense of an ox, of an averaged size, will be found considerable, where land sells high; besides his proportion of the charges, enumerated above, he is also chargeable with an interest on his first cost, and on the money expended on making the hay, &c. with a per centage for the risk of his life, together with some other expenses, which vary so much in different situations, that they cannot be readily enumerated.

It clearly appears, however, notwithstanding the expenditures and risk naturally attached to keeping an extensive stock of cattle, that those farmers who are in the habit of doing it, if their management be good, always prosper much better, than those who pursue a contrary practice. The cause of this is evident; though a loss may sometimes occur in the sale of them, the advantage derived from their manure, more than overbalances it.

It is more than probable, that winter fattening cattle in stalls, often terminates in loss; still, many of the most thrifty farmers in Pennsylvania practise it; the same is also done by some of the best farmers in England. A gentleman there, who was extensively engaged in that business, has published, that he sustained a considerable loss on the cattle fattened in this way; yet he considered the practice, on the whole, the most beneficial he could adopt; and statements formed from regular accounts, seemed to determine, that the profit and improvement of his farm was great.

If this gentleman, however, had practised soiling, united with convertible husbandry, which he, and every other farmer, possessing sufficient capital might do, where population will admit it to be done, he could have obtained manure enough, on far better terms.

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* This crop promised to be very large, but was very greatly injured by mildew. It, however, was sold for the above sum, delivered at my barn.

In fact, it would appear, that any system of management, which insures a certain loss, should be either amended or abandoned: especially, as a well directed convertible husbandry alone, will, if the management be good, furnish a sufficiency of manure, without a general loss.

When thrifty cattle have been well fattened with grass, good hay, with but little grain, will gradually improve them through the winter, if the management be good. It is by no means improbable, that ways and means might be devised, by which stall feeding through the winter would be profitable. My experience, however, has been so limited in this practice, that I am not sufficiently acquainted with the subject to point them out.

It generally happens, that the litter is so much exhausted through the winter, that a deficiency of it, joined with the continued rains, which sometimes occur during summer, cause the yard to become very wet and miry. The cattle are greatly injured, unless dry places are prepared for them, to stand and lie down in; this accommodation, however, may be readily provided, by raising the front of the floors of the sheds about six inches above the level of the yard, sloping them gradually higher, to the back part of the shed, so that the urine, and water from driving rains and snow, may readily run off. A compact clay may be best for forming the floor of the sheds, but mine were made with common loose clay, taken from such heights in the cattle yard as ought to have been reduced; so soon as they were finished, and moderately rammed, a thick covering of litter was spread over them, and the cattle suffered to go immediately on them; this seemed to answer well, as the litter prevented any injury from their feet, which soon consolidated the clay so firmly, that the floors required no litter until feeding with dry fodder commenced in the fall; after this, injury from frost was prevented, by keeping them well covered with litter.

Here it may be proper to inform the farmer, that unless this, or some other provision be made, to keep the cattle dry, soiling will not succeed: also, that nothing short of his particular attention to every part of the business can insure success. There are but few, if any, labourers to be relied on: more especially, in a business which habit has not rendered familiar to them; particularly if it be so little understood that the bad consequences arising from their neglect may be readily transferred to a defect in the system of management.

If they be not carefully overlooked, that method which renders the labour least troublesome to them, will be pursued. As it is easier to procure grass with the scythe than to rake it up clean, much will be left on the field. If too great a quantity happen to be cut, it will be found more convenient to mix it with the fresh grass, or to let it lie and destroy the grasses under it, than to make it into hay. As it requires some labour to remove the old grass from the cribs, and make it into hay, fresh grasses will be put in upon it. This seldom fails to cause the whole to become disgusting to the cattle. It is soon discovered by the labourer, that, in consequence of this negligence, the cattle eat much less. This too often induces him to bring in large quantities, for the express purpose of stalling them, that he may have less to do. When, however, he finds that the cultivator is vigilant, and making the overplus into hay increases his labour, he will abandon this practice. If cattle be stalled by being over fed with grain or roots, it is often difficult to get them to feed freely after this happens. The reverse of this occurs when they are soiled, for if the old grass be carefully removed, and fresh grasses given to them, they will eat as freely as if nothing offensive to them had happened.

Cattle, when running at large in the yard, do not generally get so dirty as when tied up in stalls. Still, they should be daily examined, and if any dirt appears it should be scraped off. This is readily done by a piece of old scythe, with a wooden handle attached to it.

Clean and fresh water is an essential article. The watering troughs should be daily well washed with a broom, and the dirty water let out at the plug holes in the bottom of them.

There are several very evident reasons why any given space of grass grounds will soil a great many more cattle than can be grazed on it; perhaps, at *least* three times as many. Cattle loathe the grasses defiled with their dung, and will not eat those that grow around it. They reject such grasses as have been trodden down by them. The wounds inflicted by the feet of the cattle on the grasses, greatly procrastinate the growth of them, as does also the cropping of those plants on which they feed. There are but few grasses which grow rapidly immediately after being mowed, although this operation, when properly performed, cuts them off smoothly near to the ground. Whereas the mouths of the cattle, if the pasture be good, leave more grass standing, and sadly mutilated, than is profitably consumed by them. The putrefaction that takes place in many of the wounds thus inflicted, renders the grasses obnoxious to the cattle, as well as greatly procrastinates the growth of them.

When the grasses are used for soiling, no injury is inflicted on them, until they are cut off by the scythe. As this does not commence before the plants attain a considerable size, and the cutting of them progresses gradually as they are wanted; this gives time for a considerable proportion of them to grow much larger than those which were first used, and also for many of them to attain their full size: therefore, as much produce is obtained by soiling as the grounds are capable of yielding, except the loss sustained by cutting a certain proportion of the plants before they have attained their full size, which cannot be avoided in any case, except that of cutting them full grown for hay.

It is believed that the grasses, when considerably advanced in size, acquire a much greater proportion of rich, nutritive matters than when they are young. Also, that if they be cut before these rich matters are sufficiently formed in the plants, or after they have been applied in perfecting the seed, the hay is nothing like so rich and good as it would be, if cut when these rich matters abound in the stems, leaves and flowers of the plant.

As observation on the economy of plants in general seems to substantiate this opinion, cutting the grasses for soiling cattle after they have attained nearly and quite their full size, may be justly considered one of the principal causes which renders soiling so much more economical than grazing. It would also appear that from this cause alone we have every reason to expect that if cattle be early habituated to soiling, by being reared up in the yard, and never suffered to obtain any part of their food by grazing, that they would fatten much sooner, and grow much larger, than if suffered to run at large in pastures: also, that working cattle and horses fed in the yard, on the older, and, of consequence, much more nutritive grass, will require much less grain than those that are pastured. As it will require but little more time for them to eat a sufficiency of grass, in the yard, than is necessary for them to become cool enough to be safely fed with grain, very little, if any, of their labour will be lost by this practice.

Oxen, when hauling, or doing any thing else that gives sufficient rest, during the time of putting in and taking out the loads, require no other food through the summer but proper grasses given to them in the yard: provided they have been well accustomed to being fed in this way.

If, however, they be hitched to the plough or harrow, or put to any kind of labour which demands continued motion, they require quite as much, or more grain, than horses, and after they have eaten it, are not capable of performing any thing like as much work, if the weather be only tolerably warm. If it be very warm, no management, or feeding will enable the ox to labour continually with tolerable advantage to the farmer.

Many gentlemen have laboured hard to prove the contrary. They might, however, have seen that nature had not formed the ox for long continued motion, even when the weather is only moderately warm, unless that motion be too slow to be profitable to the cultivator. In winter, or when the weather may happen to be cool, if he be well shod, and fully fed with grain, he may encounter long journeys in a team with tolerable advantage to the owner.

As every farmer, who has a sufficiency of capital, should keep a full stock of cattle, he will find the ox more profitable than the horse; provided he rears in the yard, or purchases while very young,* a sufficient number of steers, and breaks them at three years old to the yoke, and works them moderately until they have attained their full size. At this age they will fatten more freely, and yield more tallow, than either before or after that time.

Steers are more readily broke at two years old, and if worked very moderately, and well fed, will, it is said, grow the better. It, however, at this age, requires so many of them to drag the plough, that driving would be found a troublesome and expensive piece of business.

Oxen should be taught to walk fast while working, but ought to be unhitched and turned into the yard to rest and eat so soon as they appear to be rather flagged, and their place supplied by others that had been resting and eating in the yard.

When oxen are managed in this way, the work may be nearly as quickly done by them, when kept on cut grass through the summer, and good first crop hay during winter, as by horses well fed with grain.

It will, however, require more than double the number of them, than it would of horses, to do the same work with equal despatch. Besides the necessary rest, those that are only three years old cannot endure labour so well as if they were more advanced in age, and had been longer accustomed to it.

However, as the farmer who is able to do it, ought to keep an extensive stock of cattle,† and as it is believed by many that the size of the ox is increased by moderate labour if he be well fed and treated, there seems to be no rational objection to the multiplied number of them.

Much has been written to convince us that it is most profitable to fatten and sell steers while they are quite young: still, there seems to be every reason to believe that the growth of the ox from three to six or seven years old, is at least quite as profitable to the farmer as his growth at, or any time previously to his attaining three years of his age, more especially if his labour be estimated.

A certain loss arises on the horse, unless the cultivator commences jockey, and has sufficient skill to keep up a continued stock of young horses, with paying but little difference, in exchanging the older for younger ones. This is, however, a practice that cannot be justly recommended, as the loss eventually falls on those who have been overreached in this disgraceful traffic.

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* If I am not greatly mistaken, he will find the former practice much the best, as even an early habit is not readily subdued, especially if that habit be implanted by nature.

† This opinion, however, should have scarcely so generally prevailed if the growth of the ox was considerably retarded by moderate work: the question, however, is a difficult one. Practice seems to have determined that the calf while young grows larger and fattens much more freely when confined than when suffered to run at large. The hog when closely penned up grows to a large size if he be full fed.

The harness for horses is very expensive, more especially if the oil, labour and mending necessary to keep them in repair be estimated. The same expensive harness has been recommended for the ox, and respect for Mr. Bordley's opinions induced me to give it a fair trial. The result clearly convinced me that the yoke and bows in common practice are far better; especially if a short forked chain (as it is called here) be extended from the tongue or chain, by which the cattle draw, to the yoke, and so fixed as is best calculated to prevent the oxen from taking an undue advantage of each other, and also to keep the yoke in the proper position on their necks. The whole of this costs but little, is readily put on and off, and requires but little time or money to keep it in proper plight.

The necks of oxen are sometimes galled by the yoke, especially while they are young. If this happen, sheepskin closely covered with short wool should be immediately nailed on the yoke, with the woolly side out; and so placed as to keep the wood entirely from the neck of the animal; likewise, so that the sheepskin will not wrinkle. This has never failed, with me, to effect a cure of the galls, when observed before they became extensive.

Too many of the gentlemen who have endeavoured to bring the ox into more general use, have greatly injured the cause they intended to promote, by endeavouring to convince their readers that the ox is equal to the horse for agricultoral purposes, provided he be properly formed and managed.* This has introduced the useless, expensive and troublesome harness used for horses; and as one horse carts happened also to be fashionable, the ox too must be used in that way, although the usual and only rational plea of being placed near to the draught is not applicable to him, as two oxen may be more readily fixed in that way than one. It has, however, too often occurred, since the rage for gentleman farming commenced, that it matters not how erroneous the theory or practice may be, if it happen to be fashionable.

Overrating the properties of the ox so much, gives those who are opposed to him full opportunity to demonstrate that his advocates are egregiously mistaken in many things urged in favour of him. This, of consequence, more or less invalidates the whole that has been advanced by them.

The great feats which have been achieved at plough races, by oxen, pampered, exercised and kept like race horses, for this purpose, have also excited expectations from them, that can never be realized in practice.

When those who have been deceived by this inconsiderate piece of business, discover their error, they too frequently become prejudiced against this very usefol animal, for no better reason, than that they expect more from him than he is capable of performing.

The desire to introduce the use of oxen in the place of horses, has been such, that even Mr. Bordley, who must have known the bad effects produced on the eastern shore of Maryland, by feeding too much straw to horned cattle, says in his book of Husbandry, "A horse costs as much as four and a half oxen, and the keep of the ox, in summer, is grass alone; in winter, straw: on which they may be worked moderately; if hard worked, they have hay."

An ox cannot work hard on hay, and so far from being able to work moderately on straw, he is reduced to a skeleton if kept on it without working, unless his constitution be peculiarly hardy.

It may be useful to observe that the ox, when worked on grass, is sometimes scoured severely, especially if the grass be young. So soon as this is seen, he should be kept from grass, and fed on hay and oats, until the complaint be removed. If it be suffered to run on him, he will fall away greatly, and become too weak to labour hard.

The same, also, sometimes happens when the ox is worked in winter, and fed either on turnips or potatoes with hay. The remedy is oats in place of these roots, until the disease be properly checked.

The ox is naturally sluggish. However, bad and lazy drivers, scanty or improper food, or longer continued exercise than the animal is capable of enduring, unless he be driven very slow, are the principal causes of his becoming so insufferably slow in his motion.

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[*] If it could be admitted that some gentlemen, by great attention to breeding, have reared oxen which do as much work as is commonly done by what are called good plough horses, would not the same effort of art, if it had been also employet in improving the breed of plough horses, have kept up the same distance between the horse and ox that exised previously to any especial care being taken to improve the latter? It would seem that this cannot be doubted by those who have noticed the marked difference in horses, apparently of the same size, not only in quickness of motion and durability, but also in strength.

CULTIVATION OF HEMP.

The Worcester Ægis of the 14th inst. states, "an interesting communication was made to the Worcester Agricultural Society by the President, on the subject of the cultivation of *Flax* and *Hemp.*" In this it was observed that "during the past year, more than *twenty thousand bushels* of grain of the various kinds, including oats, rye, corn and barley, had been brought into our county from remote places, by way of Providence. It was in consequence of this fact that the cultivation of flax and hemp was recommended. That industry which had been heretofore directed to the raising of grain in this vicinity, must be diverted and applied to other objects of agriculture; at least so much of it as was necessary to the production of the quantity of the imported grain as mentioned above. It might seem from this, that agriculture had been affected prejudicially by the canal from this place to Providence, and in this particular it was no doubt true; but in almost every thing else it had been greatly benefited. The price of the 20,000 bushels of grain has been more than saved in the diminished sum at which the article of plaster of Paris alone may be purchased. Lime, and many other articles, have been procured at lower prices, and probably consumed in the same districts where the imported grain might have been raised. We say nothing of the new market created for much of our produce, and the greater facilities of transportation."

The same paper presents copies of two letters on cultivating hemp, from H. L. Barnum to Governor Lincoln, from which the following passages are extracted.

"No branch of agriculture is so well calculated at the present time, to promote the interests of individuals, or the prosperity of the country, as the culture of *hemp* and *flax.*

"The demand for these articles will be shown by the following statements:

In 1827, the value of hempen fabrics imported into the United States, amounted to $2,154,615.—In addition to this, large sums are annually expended in equipping American vessels in foreign ports, where such equipments can be obtained cheaper than in the ports of the United States. The navy of the United States, which is now far from being inconsiderable, and is rapidly increasing, as well as their commercial tonnage, (at present amounting to more than one million and a half,) must always create a great and increasing demand for hemp.

"The Navy Commissioners, in their reports on this subject, state that the American hemp is in all respects much preferable to the Russian hemp.—Why not, therefore, encourage domestic manufactures, secure fortunes to ourselves, and save our country the expense of large sums of money, sent abroad for articles which we are better calculated to raise at home?

"The advantages or profits to be derived from this business, will probably be made apparent by the following exhibit of the expenses and proceeds attending it.

"One acre of good land, suitable for corn or potatoes, will average one third of a ton of hemp, which is a cash article in market, at from 200 to $235 per ton. Taking the lowest of these, the value of the hemp from one acre would be $66 66

7 bushels of seed at $3 per bushel,	21 00
	87 66
Deduct the expense of 2 bushels of seed for sowing,	6 00
Do. labour in ploughing, sowing, and harvesting,	5 00
Do. for dressing,	20 00
	$31 00
Which, deducted from $87.66, leaves proceeds from *one acre.*	$56 66

"I have in my possession, certificates from gentlemen of the first respectability, stating that the net profits of land of a middling quality, sown to hemp, the last season, was $85 per acre.

"These facts need no comment; for I consider them sufficient inducements for agriculturists to engage in growing hemp and flax.

"I am now travelling through the New England states for the purpose of encouraging the culture of these valuable products, by giving the necessary information respecting the manner of cultivating and dressing them for market or for manufacturing. Credentials will be presented from officers of the General Government." [*N. E. Far.*

(From the Political Spectator.)

LARGE POTATOES.

Mr. Editor—On seeing in your intelligent paper of the 17th inst. the account of a potato raised by our mutual friend, Mrs. John Ashby, of this county, I was induced to weigh some of mine. The result as follows—one 1 lb. 7 oz.—one 1 lb. 9 oz.—the 3d, 1 lb. 14 oz. Through this last one the *ground-mice* had cut a complete passway, what loss in weight might have been thereby sustained is to be imagined.

I also took the contents of one hill, the product of *one* potato, 22 in number, 7 of which were small, but from the size of the others, was induced to weigh *them*—the result was eleven and a half pounds.

And now, to cap the climax, let me say that I made 300 hills, and planted therein 300 potatoes, on the 1st of March last. On the 14th day of June began to use them, and have daily, freely, and fully used them in all the departments of the family, up to the 22d of October—through which time 107 hills were taken up and disposed of—the remaining 193 hills were then taken up and measured. Each half bushel heaped, the result was twenty-five bushels, from the 193 hills, of potatoes. Moreover, it is my deliberate opinion, that 22 bushels, of the above are by far the largest ever raised in this or perhaps any other state in the union.

This is no puff, but simply an abridged statement of facts, susceptible of abundant proof. Should it elicit inquiry touching the best and most profitable manner of growing that valuable root, to which so little attention has heretofore been given, all the reward sought for will be yielded to your friend. &c.

J. H. Clarke.

LARGE CORN.

A few weeks ago we noticed a stalk of corn, presented to us by Capt. Trippe of this county, with nine ears on it; we have since received two stalks from Henry Holliday, Esq. the one bearing eight the other ten ears—the seed he obtained from Capt. Trippe about two years ago and has been since selecting his seed corn in the manner recommended by the captain, viz. selecting from the most productive corn in the field as seed corn—and is convinced of the great advantage to be derived by farmers from pursuing this course. Last week we received ten ears of very large corn from Wm. G. Tilghman, esq. of Miles river, in this county—some of the ears measured in length upwards of 12 inches, and had from 18 to 22 rows on the cob, the grain very large, one of the ears had upwards of 1200 grains on it and most of them 1000; one ear, (not the largest) shelled a pint and a gill, good measure —Mr. Tilghman says, in his note accompanying the corn, "it will not perhaps be amiss to inform you how I got this breed of corn—about 12 or 14 years ago Capt. Bullen went to Richmond, Va. for a load of coal for the late Mr. Barton of your town, and on his return he came to my house to take in a load of wheat; I happened to go on board of his boat, where I saw a part of two ears of corn; they struck me as being the largest and finest I had ever seen; I asked for and obtained them.—This was late in the fall, the spring following I planted them, and I think, as well as I can recollect, I made a barrel or a barrel and a half, which put me fully into the seed. For the last 10 years I have been in the habit of selecting my seed corn (when husking) from the largest and finest ears, until I got what would serve for planting; last year I gathered part of my seed corn from stalks that bore two ears, but as yet have discovered no difference—I mean to persevere in this plan, selecting the twin ears."—Mr. Tilghman, we understand, has about three hundred and seventy-five thousand [hills, the number of acres ought to have been given] in cultivation the present year, and thinks he will gather at least 1000 barrels. [*Easton paper.*

HORTICULTURE.

Arbol de Leche—Palo de Vaca—Milk Tree—Cow Tree.

Linnæan, Bot. Garden,
Nov. 4, 1829.

J. S. Skinner, Esq.

The tree known under the above Spanish and English names is a native of Venezuela.

M. Magendie, a traveller in that country, gives the following account of this singular vegetable production, "in the valleys of Aragua there is a tree called *Palo de Vaca*, which rises like the broad-leafed star apple.*

Its long and pointed leaves, tough and alternate, are marked by lateral ribs, prominent at the lower surface and parallel. We did not see the flower; the fruit somewhat fleshy, and containing one, sometimes two nuts. When incisions are made in the trunk of the Cow tree, it emits abundance of glutinous milk, tolerably thick, destitute of all acrimony, and of an agreeable and balmy smell.

It was offered us in *Tortumas*,† and we drank considerable quantities of it in the evening before we went to bed, and early in the morning, without finding the least injurious effect. The viscosity of the milk alone renders it a little disagreeable. The negroes and coloured people eat it with bread —The negroes grow fat in the season of most milk. The juice exposed to the air presents on its surface, membranes of a strongly animalized matter, yellowish, stringy and resembling a cheesy substance. These membranes, separated from the more aqueous liquid, are elastic, almost like caoutchouc; but they undergo in time the same phenomena of putrefaction as gelatin. The natives call this coagulum cheese. This coagulum grows sour in five or six days, as observed by experiment. The milk contained in a stopped vial had deposited a little coagulum, and far from becoming fœtid, it expelled instantly a balsamic odour. Fresh juice, mixed with common water, scarcely coagulates at all; but on contact with nitric acid, the separations of viscous membranes took place. It is peculiar to the coast of Barbula and near the lake of Maracaybo."

M. Bredemeyer says, "it exists three days journey east of Caracas, in the valley of Caucagua."

M. Kunth says it belongs to the sapota family.—On the barren sides of a rock grows this tree, with coreaceaus and dry leaves, and large woody roots. For several months it receives no moisture, (the rains being periodical,) and its branches appear dry and dead, but gives milk upon piercing the trunk. At sunrise the milk flows most abundantly. It grows yellow and thick on the surface as cream.

The other plants which came with the Cow tree are the Bolivian Mountain Gloriana, and a Helonia, neither of which do I know by these names; but the other, the Rosa del Monte, I have often seen. The tree grows 40 to 50 feet high in the vicinity of water courses, produces beautiful drooping foliage and a splendid scarlet flower nearly or quite as large as the tree Pæonia, and flowers very much after the manner of the Astrapea.

Yours, very respectfully,
WM. PRINCE.

Extract of a letter from Jacob B. Garber, Esq., of Pennsylvania, to William Prince, proprietor of the Linnæan Botanic Garden, dated May 4, 1829.

"We have a new grape in this neighbourhood, raised from the seed of raisins by Mr. Funk, which is said to be very fine, of a dark red colour, transparent and firm, sweet flesh. There is but a single plant yet, which I saw this spring; its growth is remarkably strong, resembling the Isabella. It produced its first fruit last summer; grows in Mr. Funk's garden, on the north side of a hill, and is very hardy; has shoots more than 20 feet long, of last year's growth. He has several others raised in the same way and same time, but none have produced fruit excepting the one."

(From the New England Farmer.)

STOCKS FOR GRAFTING.

Mr. Fessenden—I noticed in one of your late papers some queries respecting the grafting of pears on thorns. I do not think them so good as *pear* stocks; yet they *may* answer, provided the scions be inserted *below the surface of the ground*, that the trees may take root from the scions—otherwise, the pear will so much outgrow the thorn, that neither the stock nor roots will be sufficient to support the top. I know of a pear tree which was grafted on a thorn some feet from the ground; the stalk of which is now two inches only, and the pear (just above) is six inches in diameter! It has been found necessary to set a frame under the tree to prop it up.

As our common red cherry does not grow so large as the English cherry tree, I think the same remarks would apply.

I have noticed many of Bolmer's Washington plum trees, which are about twice as large as the stocks on which they stand. I think it is evident that the trees would have been more than twice as valuable if grafted so low that they had taken root from the scions. It is desirable, for all varieties, to use stalks that will grow as large and as fast as the scions set in them. Henry Little.

Bucksport, Me. Nov. 1, 1829.

LIME PLANT.

This plant (*Podophyllum peltatum*) is a singular production of nature. The stem, foliage, flower, and fruit, are formed in the earth; and after the plant has come up, there is nothing more than the extension of parts. The stems, at the height of from eight to twelve inches, branch out in two arms, at the extremity of each is a large palmated leaf. In the fork proceeds the fruit stem. The first that is seen in the spring is a delicate membraneous cap, which is soon burst open by the flower bud, which is large, white and round. The shoulders and arms, lying close to the stem or trunk, soon appear, and as the plant rises, the fruit stem elongates and the arms elevate themselves. The fruit is about the size of a large lime, green while growing, and yellow when ripe; has the flavour of a pine apple; and as to eating, but little inferior to that fruit. The plant requires a moist soil in a shady situation. May be propagated by seed, but best by dividing the roots, which are creeping and jointed. The root is medicinal. [*Ib.*

(From the Taunton Advocate.)

SWEET GREENING.

Mr. Editor,—On observing in your Advocate of the 23d inst. an article by Veritas respecting the sweet greening described in the American Orchardist, I went immediately to Kingston to make more particular inquiry of the cultivators of those trees, and to examine the apple attentively. I have the satisfaction to ascertain that the statement in my Orchardist is substantially correct, except a trifling error in the description. The apple does not so nearly resemble the Rhode island Greening as I had conceived, it is more like the Tolman Sweeting, though it far surpasses that apple in good qualities, abounding more in rich sirupy juice. The tree itself is much in the form of the Rhode island Greening, it is a good bearer, more uniform and abundant in its production than trees in general. The tree which I examined is of full size, and about twelve bushels were taken from it this season. An aged woman assured me that she had kept the apples till July. I send you half a dozen for inspection, and I believe a few of the young trees may be obtained at the nursery of Mr. Spencer Bradford, of Kingston. I scarcely know a more delicious article in the epicurean catalogue than a baked sweet apple in winter, but it is what we rarely enjoy, so rare indeed that its real excellence has not been duly appreciated. Were it better known the tree would be more generally cultivated, and those whose tastes are congenial to my own might pride themselves in a favourite dainty, without the risk of impairing health.

I am respectfully yours,
James Thacher.

Plymouth, Oct. 27, 1829.

RURAL ECONOMY.

SHELTERING FARM LANDS.

The practice, almost every where prevailing in the United States, of removing every tree from the ground, in clearing new land, shews that the importance of affording shelter to farms exposed to high winds and biting blasts, is not sufficiently appreciated. When interspersed with stripes or masses of plantation, not only are such lands rendered more congenial to the growth of grass and grain, and the health of pasturing animals but the local climate is improved. The fact that the climate may be thus improved, has, in many instances, been sufficiently established. It is, indeed, astonishing how much better cattle thrive in fields even but moderately sheltered, than they do in an open, exposed country. In the breeding of cattle, a sheltered farm, or a sheltered corner in a farm, is a thing much prized, as, by affording them protection from the keen winds of spring and autumn, they uniformly feed with more freedom, and much better than if they were exposed.

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* Chrysophyllum cainito.

† The Calabash cut in two, and used to drink out of.

The operation of skreen plantations, observes Marshall, is not merely that of giving shelter to the animals lodging beneath them; but, likewise, in breaking the uniform current of the wind—shattering the cutting blasts, and throwing them into eddies; thus meliorating the air to some distance from them. Living trees communicate a degree of actual warmth to the air which envelopes them. Where there is life, there is warmth, not only in animal, but vegetable nature. The severest frost rarely affects the sap of trees. Hence it appears, that trees and shrubs, properly disposed in a bleak situation, tend to improve the lands so situated, in a threefold way, for the purposes of agriculture; namely, by giving shelter to stock; by breaking the currents of winds; and by communicating a degree of warmth, or softness, to the air in calmer weather.

Nor ought it to be altogether kept out of view, that the retaining, and judiciously arranging a portion of growing timber on a farm, confers a richness, and picturesque beauty on the landscape. We have seen some lands, on which nothing was sought for but profit and shelter, where the greatest beauty was produced by adopting this system. Where, however, trees for shade may be requisite for agricultural purposes, they should be sufficiently open to admit a free circulation of air. For this purpose, trees with lofty stems, and large heads, pruned to single stems, are preferable. To shelter live stock, the skreen should be open at the bottom. Otherwise, it is injurious, rather than beneficial. The blast not only acquires additional current, but snow is liable to be blown through, and to be lodged in drifts on the leeward side, to the annoyance and danger of sheep that have repaired thither for shelter.

BEES.

In the department of Calvados, they have a method of managing their bees, which is worth the attention of apiarians, in countries where the hives are transported from place to place for change of food. In one half of this department, called Le Bocage, large tracts of high land are covered with buck-wheat, and then the bees produce excellent wax, but bad honey. In another part of the district, in the plain, where saintfoin is extensively cultivated, the honey is delicious, but the wax is bad, and difficult to bleach.

It is the custom of the cultivators of the Bocage, as soon as the saintfoin begins to flower, to send their hives down into the plains, and to lengthen them by means of an empty hive, to which the bees are allowed access; by the removal of the top of the old hive. This operation they call *calotter*.

As soon as the saintfoin ceases to produce blossoms, they take their hives home, separate the new hive from the old one, and drive the bees out of the former into the latter; an operation which is easily performed, by inverting the one under the other. By this means, they effectually separate the honeycomb prepared from the saintfoin from that extracted from the buck-wheat, and make use of either according to their convenience. The usual practice is to leave the honey from the buck-wheat for the winter provision of the bees.

SWARMING OF BEES.

It is a prevailing and general opinion, that bees never *swarm* without *first* showing some previous signs or tokens; and that they seldom swarm until about the middle of the day. Those who keep bees in the duplicate manner, by setting one hive or box over another, are misled by the writers on bees to believe, that by such kind of contrivance, they are prevented from swarming at all. Both which opinions are assuredly ill founded. I take upon me to assert, that *one-third* of the prime or *first swarms escape* unperceived; and that, generally, without the least indication of their design. The seasons and hours of swarming are also much mistaken: they sometimes swarm in March, frequently in April, and from seven in the morning till four in the evening; many rise so early and so late. Nor will a transient viewing of them now and then suffice; one minute shall present no appearance of swarming, and in the next they shall suddenly issue, and fly quite away. Those that are duplicated are equally as prone as those in single straw hives; for *all* will equally pursue great Nature's law, *to swarm*. Without, therefore, a bee-herd, or person appointed for *constant watching*, not casually, but without intermission, from seven till four, the proprietor will have his expectations, in a great measure, disappointed. A child or aged person may be hired for the purpose, at the easy charge of two-pence or three-pence a day, whereby, if only *one* swarm be preserved, it will prove an adequate compensation for the expense; besides being sure of losing none of the rest, and the preventing a great deal of anxiety, and often a very fruitless trouble to those who keep four stocks, or more.

INTERNAL IMPROVEMENT.

BALTIMORE AND SUSQUEHANNA RAIL ROAD.

Office of the Baltimore and Susquehanna
Rail Road Company, Oct. 19, 1829.

To the Stockholders of the Baltimore and Susquehanna Rail Road Company:

Gentlemen,—Since the last Annual Report of the Board, a general meeting of the Stockholders was called on the 25th day of May, to consider what steps were then necessary to be adopted for the interest of the company. At that meeting the views of the board were submitted at large to the consideration of the stockholders, who, after a free consultation and interchange of opinion, *Resolved*, That it was expedient to proceed forthwith in the construction of the road as far as the division line between Maryland and Pennsylvania. For the information of the stockholders, a copy of its proceedings, together with the report of the board, is herewith submitted, and a careful consideration of the facts and arguments upon which the resolution was founded to proceed with the work, is respectfully requested from those who were absent upon that occasion—and others, who may now begin to feel an interest in the subject.

In pursuance of the Resolution of the stockholders, the board proceeded to a careful examination of the various routes, which had been surveyed and reported to the company by Gen. Swift; and also directed a particular survey to be made along the valley of Jones' Falls and Roland's Run to the head of the latter stream. The surveys and plots being returned, the board were placed in full possession of the whole subject, and with all the information necessary to a fair comparison of the various courses which had been designated for the line of the road—these were,

1st. The Turnpike Road from Baltimore to York.

2d. From the first Bridge on the York road, along the valley of Jenkins' run and Herring run, to the source of the latter in Sater's ridge, and thence to a point near the ten mile stone on the York road, and where the sources of Roland's run and Deye's run approach each other.

The 3d. Along the valley of Jones' falls to the mouth of Roland's run, and thence along the margin of that stream to the same point as the second route.

It is to be observed, that all these routes of the first division of the road from Baltimore, unite at the same place, which in any event must become the point of future extension of the road to the main Gunpowder, and thence to the Susquehanna river. It was therefore only necessary at this time for the board to determine the actual route upon this first division, leaving the precise location of the road from that point for further and more minute examination and future decision.

A comparison of the three routes above mentioned, left no hesitation upon the minds of the Directors, that the one along the margin of Jones' falls and Roland's run was, in every respect, to be preferred over the others, uniting in itself greater facility of construction—abundance of stone and other materials—less expense in making it, and when finished, more permanency and durability.—The report of the Engineers will show in detail the comparative merits of the routes, and the grounds upon which the opinion of the board is sustained. It is not necessary to state in this report all the facts which exist, in regard to the comparative advantages of the lines indicated by the surveys. It is sufficient to remark in regard to the first—*of the Turnpike road*,—that in order to render it practicable for the uses of a rail road, it will be necessary to break up the present bed, for the purpose of cutting down the elevations and filling the hollows, and grading them to such slopes as could be profitably used on a rail road. These cuttings and embankments, from the nature of the country over which the turnpike passes, would form a series of inclined planes, and would require at least forty stationary engines to overcome the same number of elevations between Baltimore and the Susquehanna river. The cost of preparing the intermediate road between the inclined planes, would have been enormously expensive, and when to all these difficulties, you add the cost of purchasing out the proprietors of the present turnpike route, there could be no hesitation in adopting the opinion of Gen. Swift, in his report of 1828, "that any idea of constructing a rail-way upon the turnpike road must be abandoned."

The second line along the eastern side of the turnpike road, in the direction of Jenkins' run and the western branches of the Herring run, was found upon more close inspection to involve greater difficulties than had been anticipated. To enable the stockholders to judge between the comparative merits of these routes, it must be kept in mind that to attain the point of the first division of termination, it is necessary to pass the summit of Sater's ridge, which is 478 feet above tide; to accomplish this object by a direct line along the turnpike has been shown to be impracticable. The next effort was to effect the same end by following the valleys of streams having their source in that ridge. This it was thought could be done by following the valley of Jenkins' run to its head, thence to the first western branch of Herring run to its head, thence to the second and third branches, whose valley reaches to the summit of the ridge. But it was found, that after passing Jenkins' run, the branches of Herring run, before mentioned, rise from the slope of Sater's ridge and pursue a south easterly direction until they unite in the main branch. The ridges of land between these branches were found to present a surface of very considerable elevation, unbroken by any depression along which the road could have passed from one branch to another. To pass these ridges, would have required a succession of deep cuttings exceeding seventy-five feet, or the use of stationary engines of immense power, to overcome the various elevations. The whole distance by this route to the end of the first division, at the head of Roland's run and Deye's run, would be fifteen miles and a half.

The third or last route, adopted by the board, commences at the city boundary, on the west side of Jones' Falls, at an elevation of ninety feet above tide, thence along the western margin of that stream, to a point between Beatty's Powder Works and Pedee's Cotton Factory, about seven miles from the city, where it crosses Jones' Falls; thence along the eastern margin to Roland's run; thence up the valley of that stream to the head of Deye's run. The whole distance is twelve miles, and the total elevation from the point of departure to be overcome is two hundred and eighty-nine feet; and as Jones' Falls breaks through Sater's ridge, this can be accomplished by a hill side excavation on the whole line upon a regular plane of twenty-four feet to the mile, without any deep cutting whatever—and where it becomes necessary to blow off the projecting points of rocks, the demand for the stone in building culverts, reduces the expense to a level with common cutting. Upon these routes we encounter no extensive flats where heavy and expensive filling will be required, and the ravines which make into the falls from the west, are short and precipitous, and consequently require but very narrow bridges or culverts to cross them.

The cost of the road on this line will be much diminished, from the circumstance of no distant removal of the earth being necessary; from the convenience and abundance of materials, and the everlasting durability of the work when completed.

Having determined upon the route of the first division of the road, arrangements were immediately made for the commencement of the work, and the first stone was laid by the Grand Lodge of Masons in Maryland, with the usual ceremonies, on the 8th day of August last, it being the first hundredth anniversary of the city of Baltimore. Since that time the work has progressed steadily, and upon a system, which experience shows to be economical and judicious.

The plan which has been heretofore adopted in all public works of a similar kind, of letting it out by sections to contractors, was believed to be liable to many and serious objections. The intrinsic difficulty of being able to ascertain with any certainty, or even an approximation to it, the prices at which the sections ought to be let out to contractors, caused them in a great majority of cases to be let out at a price either above or below the actual cost at which the work could be done; in most instances where the contracts were completed, it afforded large profits to the contractor, and where they were taken at a price below the value of the work, the contract was given up or thrown back upon the company; in either case the company must be the loser, and in no event could it be a gainer. For these and other reasons which will suggest themselves to the stockholders, the board determined to prosecute the work by means of superintendents under the immediate direction of the Company and its Engineers. By this means an uniformity in the construction, and discipline and order amongst the hands can be preserved. The certainty of punctual payment to the labourers at the end of the week, gives us a choice of the best and steadiest hands, who work cheerfully and constantly, and the result of the experiment upon the whole has fully justified the propriety of its adoption. So far as we have the means of judging by comparison and the limited operations on our own road, there will be a saving of no less than twenty per cent. in this mode of doing the work, over the old mode of doing it by contractors.

In regard to the extent of our actual operations we have to state that from the first stone it has extended to a distance of about three miles, and over a portion of the line which presents greater difficulties than are to be found on the first division, or perhaps on any part of the road between Baltimore and the Susquehanna river; the stone quarries immediately beyond Stricker's mill, and those opposite White's mill with some intermediate points of projecting rocks, presented obstacles exceedingly formidable in appearance, but in a very short time they have been nearly reduced to the level of the road, and a large portion of the stone consumed in the erection of piers for bridges, culverts and parallel walls, to sustain the earth thrown from the hill sides. With the exception of a viaduct or bridge-way in front of the exhausted stone quarry above Stricker's mill, more than two thirds of the work upon the first two miles and a half has been completed, at a cost which will justify us in placing the average cost of preparing the whole of the first division of twelve miles, including bridges, culverts, and all other structures, (except the viaduct at the large stone quarry and the bridge across Jones' falls,) to receive the rails at a sum not exceeding $4500 per mile. Indeed, after passing the first three miles, the facility of the work is so great, and the difficulties to be encountered comparatively so few, that the road will reach the lime stone region at an expense and within a period of time which will surprise and gratify all who feel an interest in its success. The whole line of country presents a hill side, broken only by a few projections and indentations, and rising gradually to its summit at an elevation which to the eye, and even to the instrument, is little more than a level—it may indeed be said that in the practical operations of the road, the gentle inclination of it in the direction to tide water (whence the heavy burdens will be transported,) affords an important advantage over a dead level.

These general observations, will enable the stockholders to understand the views of the board in the selection of the route for the road, the manner of its construction, and the general features of the country over which it is to pass.

The report of the Engineer, which is herewith returned, estimates the probable cost of making the road complete, for the first 12 miles, at one hundred and ten thousand dollars; the estimates are founded upon a careful examination of the work itself, and a comparison with the estimates and calculations of experienced engineers in other similar undertakings, and the experience which has been derived from the actual progress of those works.

(To be continued.)

LADIES' DEPARTMENT.

The following article from a late London paper, contains some valuable hints. Society is not divided with us as in England into many classes, but distinction between the mistress and the *maid* should be preserved in all countries.

HOUSEWIFERY.

To the middle class of life there is no female accomplishment more valuable than housewifery. By that class is it sufficiently prized as an accomplishment, or wisely inculcated as a necessary branch of education? It is feared not. Few girls are regularly initiated into the various household duties; yet, to all girls, the knowledge of them is essential, since, as wives, daughters, or sisters, all will, probably, have households to superintend. How extensive the mischiefs caused by the ignorance of housewifery, we every day hear and see painful instances.—The misery endured by the helpless untaught individual, in feeling her ignorance, and seeing the varied form of evil that ignorance produces, must be most severe. Let not mothers wilfully condemn their daughters to sorrow, disgrace, and error, from which it is not so easy to rescue them.

The duties of housewifery being generally, of an active and desultory nature, are usually very agreeable in the performance to active and variety-loving young people, they will, therefore, be cheerfully attempted and pursued, and we shall enlarge the pleasures of girls, by the same encouragement with which we prosecute their improvement.

But there is one caution that must be undeviatingly regarded. In pursuing the superintendence of house-keeping, girls must act as the mild but respected *directors* of servants; not as their associates, confidants, and playmates.—This rule can be easily enforced. Children should be taught to regard servants as *fellow-creatures*, as beings like themselves, prone to error, but capable of virtue; at the same time, they should be taught that, whilst they may love and pity those beneath them, it is always most wise to choose their companions and friends, as much as possible, in their own rank: on this principle, namely, that they may not learn to domineer over mean associates, nor cringe beneath great ones. This premised, the first lessons of housewifery should be practised under the eye of the mother. At fifteen years of age a girl will know enough of arithmetic to be ready at accounts, and will have sufficient judgment to reason fairly on what she observes. At that age she may occasionally attend her mother in her daily visit to the kitchen and the larder; let her behold the arrangement of household business, the manner of giving directions, the plan of furnishing supplies; she will thus gradually imbibe a clear conception of all such matters; she will understand the usefulness of method; she will find out the usual consumption of a family; she may be taught, *by example*, to censure with mildness, to listen to reasonable excuses, to be peremptory in just orders; to know what to expect from the industry, and what to pardon to the frailty of domestics.

To avoid a dangerous association with menials, it would be advisable to bound the exertions of the *youthful* housekeeper to superintendence. Unless urged by imperious necessity, let not girls *assist* the labors of servants. It is money badly saved to make them perform any humble business, which, for a few shillings, could be performed by a hireling. The mother had better do it herself, if she cannot afford those few shillings, or dispense with smart clothing for herself or her child, to meet the expense, or be present when her child is so occupied.

It is not from a sentiment of pride that this point is so earnestly recommended, but it is from a desire to check the dissemination of error. When a young lady and her maid are engaged together in some occupation, they must enter into conversation; now, of what nature must that conversation prove? The maid would not understand the wisdom, nor relish the morality of her polite associate, but both maid and miss could understand, and we fear, both would relish, the retailed news of the day, anecdotes of neighbours, and petty scandal. By this power of communication, both maid and miss are contaminated; the menial is encouraged in habits of espoinage and scandal, and the mind of the young lady is irreparably vulgarized and poisoned; it were better she should perform the whole labor in the parlor or her own chamber, than that such a fearful risk should be run by association with a servant.

The management of the breakfast and tea table will induce some knowledge of performing the honors of the mistress of a house. Occasionally, the whole arrangement of the house may devolve on the young housekeeper. At sixteen she may be invested in all the rights and duties of the household superintendence. The mother may sometimes interfere with advice, but let the whole responsibility rest with the daughter, that thus, being thrown upon her own powers, she may early learn judiciously to exert those powers; and, when mistakes occur, as occur they must to beginners, in all the offices and business of life, it is better they should occur under the paternal roof, where partial relatives are prompt to excuse and remedy, than in the first days of bridal management, when the agitated mind is full of the variety and novelty of its duties, and new friends and new kindred are less disposed to pardon and correct.

(From the Athenæum or Spirit of English Magazines.)

RURAL SIGHTS AND RURAL SOUNDS.

'Tis sweet, in flowery vales to hear
The murmurs of the crystal rill,
When labor's laugh salutes the ear,
And ceaseless clacks the busy mill;
The wild bee humming on the hill,
The cushat cooing in the glen,
The blackbird's whistle, sky-lark's trill,
Loud quacking duck and cackling hen,
Blythe milk-maid's song, lambs bleating shrill,
And echo answering all again;
On earth, in air, and all around,
Floats harmony, and joy in every sound.

'Tis sweet, when soft the light breeze blows,
To hear it in the woodlands die;
Or when the zephyr fans the rose,
In whispers soft as lover's sigh.
How sweet when floating in the sky
The joyful sound of Sabbath bell,
And sweeter still the harmony
Breathed from the cottage in the dell;
The vesper song ascending high,
In cadence soft, or solemn swell;
The simple incense offered there
Of grateful praise, and humble heart-felt prayer.

'Tis sweet to mark the morning's dawn,
The landscape spreading to the view;
The dusky veil of night withdrawn,
And nature clothed in graces new,
Like thread of gold on ether blue,
Where first appears the lord of day,
And every blade with pearly dew,
Reflecting the refulgent ray;
While fleecy clouds of varied hue
Surround his throne in rich array;
Woods waving in the morning breeze,
And blue smoke curling o'er the village trees.

How sweet to mark each varied bloom
On green-wood glade, or sunny plain;
The wild rose, hare-bell, yellow broom,
And summer's countless flowery train;
In sunbeams shines the gentle rain;
Stretched o'er the sky heaven's arching bow,—
From blue hills to the watery main
Is spread the rich ethereal glow;
While peasants to the hallowed fane,
Wind slowly down the vale below;
Its moss-clad walls with ivy bound,
And daisies deck the humble graves around.

'Tis sweet to breathe the balm of morn,
When wafted on the mountain gale,
From dewy birch or blossomed thorn
That mingle branches in the dale;
Or violet blue, or primrose pale,
The odors of the flowery bean,
And modest lily of the vale,
Beneath the spicy woodbine seen,
Where eglantines their sweets exhale,
That mock the rose, the garden's queen;
And sweeter still, at close of day,
Or dewy morn, the scented half-won hay.

O these are pure and simple joys;
Try them, ye lovely young and fair;
Can crowded scenes of bustling noise
With rural sights and sounds compare?
Can city smoke and splendid glare
Of crystal lamps, and midnight hours,
Be praised beyond fresh mountain air,
And meadows gay with scented flowers?
There haste the calm delights to share
Of waving woods and leafy bowers;
If nature is preferred to art,
Her rural charms must captivate the heart.

MISCELLANEOUS.

(From the Journal of Health.)

ANIMAL AND VEGETABLE FOOD.

It is amusing to hear a nervous female, whose daily exercise consists in going up and down stairs two or three times a day, and shopping once a week, complain that she cannot preserve her strength unless she eats freely of some kind of meat and takes her twice daily potations of strong coffee, to say nothing of porter, or wine sangaree. The same opinion prevails among all classes of our community.—A child (in the arms) cannot, it is thought, thrive unless it have a leg of a chicken, or piece of bacon in its fist to suck: a boy or girl going to school must be gorged with the most substantial aliment at dinner and perhaps little less at breakfast and supper. The child is crying and screaming every hour in the day—has, after a while, convulsions,—or obstinate diseases of the skin, or dropsy of the brain.—The little personage going to school complains of headach, is fretful and unhappy and becomes pale and feeble.—The poor books are now blamed for the fault of the dishes, and school is given up. The doctor is next consulted on the best means of restoring strength to the dear creature, that has lost its appetite, and can eat nothing but a little cake, or custard, or at most some fat broth. Should he tell the fond mother the unpalatable truth; and desire her to suspend the system of stuffing, and allow her child, for sole food, a little bread and milk diluted with water, and daily exercise in the open air, she will be heard exclaiming in a tone of mingled astonishment and reproach, why doctor, would you starve my child!

For the information of all such misguided persons we would here beg leave to state that the large majority of mankind do not eat any animal food, or so sparingly, and at such long intervals, that it cannot be said to form their nourishment. Millions in Asia are sustained by rice alone, with perhaps a little vegetable oil, for seasoning.—In Italy, and southern Europe generally, bread made of the flour of wheat or Indian corn, with lettuce and the like mixed with oil, constitutes the food of the most robust part of its population. The Lazzaroni of Naples, with forms so active and finely proportioned, cannot even calculate on this much; coarse bread and potatoes, is their chief reliance:—their drink of luxury is a glass of ice water slightly acidulated. Hundreds of thousands, we might say millions, of Irish do not see flesh, meat or fish from one week's end to the other. Potatoes and oat meal are their articles of food—if milk can be added it is thought a luxury: yet where shall we find a more healthy and robust population, or one more enduring of bodily fatigue, and exhibiting more mental vivacity? What a contrast between these people and the inhabitants of the extreme north, the timid Laplanders, Esquimaux, Samoideans, whose food is almost entirely animal!

IMPROVEMENT IN BEDSTEADS.

We have seen a new fashioned bedstead, which is constructed upon a plan somewhat novel, and answering, in case of necessity, for a cot as well as a bedstead. A separate frame, similar to that of a cot, is placed upon a railway which is fastened to the side rails near the head and foot of the bedstead. Wheels are attached to the feet of the cot, which diminish the friction and assist in expanding the frame, by means of which the sacking-bottom may be stretched to any degree required. The rails of the frame are cylindrical—the canvass and cord are thrown round them and form a band which can be removed in a moment. By lifting off the cot part, *two* beds are made out of *one*. The cost of these improved bedsteads is not greater than that of those in ordinary use. We are informed by the inventor that the rays of the sun kill *bugs* in a moment, and he has constructed this bedstead so that every part can be exposed to the sun in a very short time; in addition to which it affords no harboring place for those little tormentors.—The article may be seen at Franklin House. [*N. Y. Courier.*

WILD DUCKS.

This fowl has already visited our waters in great numbers; and it is stated as the opinion of old and experienced duckers, that they will be more numerous this season, in the rivers in our vicinity, than they have been for several years past. The article on which they feed being much more abundant. A day or two since we were at Bohemia river, and for several miles in extent, could see innumerable beds of them on the water; in fact the river seemed literally covered, which is an unusual circumstance, at so early a period of the season. The persons residing on the above shores were making extensive preparations for an attack; one individual alone having provided a keg of powder and several bags of shot. [*Elkton (Md.) Press.*

RECIPES.

FOR A WATER PROOF VARNISH.

Mr. Editor,—I observe in the forty-eighth page of the first number of your excellent journal, a recipe to prevent hunting boots from taking in water, which may be, and doubtless is, a good one; but from experience I give the preference to one much more simple in its component parts. It was recommended to me about two years since by Mr. Gideon B. Smith, a gentleman to whom society is indebted for several discoveries of great value. It simply consists of seneca oil and gum elastic; one ounce of the latter to be cut into thin shreds and dissolved in a pint of the former, and when dissolved, which will be in a few days, the boots are to be completely saturated or charged with the mixture. The manner in which I have prepared my boots is as follows: I take a piece of sponge, and rub the mixture in until the leather will absorb no more of it; the boots are then laid by for a day or two, when the process is repeated. The *soles* as well as the *uppers* are to be thus rubbed, and the operation is to be performed either before a fire or in the sun. Since I have adopted this plan of treating my gunning boots, I have never had a wet foot, though I have repeatedly, during the past summer, been in the heavy marsh at Potts' spring, from early in the morning until five or six o'clock in the afternoon. Nor is this mixture alone serviceable to hunting boots; it would be found equally so to all others, as it imparts an elastic pliancy to the leather, which, without the least exaggeration, would make one pair last as long as two which had not been so prepared.

[*Amer. Turf Reg.*

PREPARATION OF QUILLS.

M. Schloz, of Vienna, gives the following process for preparing quills for making pens, which, it is said, will render them more durable, and better than the best Hamburg quills:—A boiler is to be about one-fourth part filled with water, and the quills suspended in a perpendicular position over the surface of the water, with their tails downwards, so that the extremity of the tail is not below the surface of the water. The boiler is then to be covered with a close cover, and kept boiling four hours. The next day after having cleared the quills of roughness, and rubbed them with a piece of woollen cloth, let them be exposed to a moderate degree of heat; and on the following day they will be found hard and transparent, and without the defect of splitting too freely.

THE FARMER.

Baltimore, Friday, November 13, 1829.

Maryland Agricultural Society.

Thursday, November 5, 1829.

Pursuant to public notice, a meeting of the *Maryland Agricultural Society*, was this day held at the office of the American Farmer, for the election of officers for the ensuing year.

H. V. Somerville, Esq. was called to the chair, and James Howard appointed Secretary, when a ballot being had, the following officers were duly elected:

Richard Caton, *President.*
James Cox, *Treasurer.*
J. S. Skinner, *Corresponding Secretary.*
Henry Thompson, *Recording Secretary.*

Trustees.

B. W. Hall,
Jacob Hollingsworth,
James Carroll, Jr.
John Ridgely,
C. Carroll, Jr.
James Swan,
Allen Thomas,
George Cooke,
H. V. Somerville,
Thomas Oliver,
J. B. Morris,
S. W. Smith,
George Howard.

James Howard, *Sec'ry.*

Thursday, Nov. 5, 1829.

The Trustees and Officers of the *Maryland Agricultural Society*, met this day agreeably to adjournment, at the town residence of George Howard.

Present, the President, ten Trustees, the Treasurer and Secretaries.

The committee to whom was referred the duty of revising the existing organization of the society, made a report, which, upon being read,

It was *Resolved*, That twenty copies of said report be printed, and one sent to each of the trustees, and that the subject thereof be referred to the next meeting of the trustees, to be held at the residence of Samuel W. Smith, on Thursday the 3d December, at one o'clock precisely.

Adjourned to meet as above.

Lafayette.—General Lafayette has lately come into possession of a large property under the indemnity law, being the fortune of his own and his wife's family, of which the revolution had deprived them.

Foreign News.

There has been no arrivals from Europe since our last, and the only item of intelligence from the seat of war we are able to lay before our readers, is the following, which may be taken for what it is worth:

Highly Important—*if true.*—Captain Thompson, of the Atlantic, at New York, left Trepani (Island of Sicily,) on the 29th Sept. and informs that a report was in circulation, which was believed, that the British and French had taken possession of the Forts upon the Dardanelles, and that the British Fleet had passed through into the Black Sea. Captain Thompson leaving Trepani, spoke a British brig from Smyrna, who confirmed the above report.

Prices Current in New York, November 7.

Bees-wax, yellow .22 a .23. *Cotton*, New Orleans .10 a .12; Upland, .8 a .10½; Alabama, 8½ a 11. *Cotton Bagging*, Hemp yd. .18 a .21; Flax .14 a .18. *Flax*, American, 8 a 9. *Flaxseed*, rough, cask 9 a 9.12½; clean ——; *Flour*, N. York, bbl. 5.37 a 5.50; Canal —— a ——; Baltimore Howard st. 5.87½ a 6.00, Richmond city mills, —; country, 5.37 a 5.50; Alexand'a, 5.50 a 5.62; Fredericksburg 5.37½ a 5.50; Petersburg, 5.37½ a 5.50; Rye Flour, 3.50 a 3.62½; Indian Meal, per bbl. 2.87 a 3.12½; per hhd 13.00 a 13,25. *Grain*, Wheat, Vir. 1.00 a 1.07; N. Caro. —- a —-; Rye, North, 65 a 67; Corn, Yel. Nor. .62 a .63; Barley, .56 a .57; Oats, South and North, .30 a .36; Peas, white, dry 7 bu. 5.00; Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 7.75 a 8.00; prime 5.50 a 6.00; cargo 4.00. a 4.25; Butter, N. York, —-; shipping, —-; Lard, .5 a .6; Pork, mess 12 00 a 12.50; prime 10.00 a 10 25, cargo —- a ——; Hams, Va., per lb. — a —; Northern — a —. *Rice* .2.37½ a .3. *Tobacco*, Virginia .4 a .6½; Kentucky, .4 a .7.

Prices Current in Philadelphia, November 9.

Bees-wax, yellow .22 a .23; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10 a 10.50, prime 9 a 9.50, cargo 7; *Butter*, No 1, 9 a —, No. 2, 6. a —; *Cotton*, New Orleans .10 a .12, Upland 9. a .10, Tennessee 9. a .10, Alabama 9. a 10; *Feathers*, South. .34 a .36, West. .34 a .35; *Flax* .7½ a .8. *Flour*, sup. 5.12½, fine, 4.87½ a —; Rye 3.62½ a 3.75; Cornmeal, hds. 12.25 a ——, bls. —— a 2.25; *Flaxseed*, cask —— a ; bu. 1.13 a 1.18; *Grain*, Wheat 1.02 a 1.05; Rye .53 a.55, Corn l. c. white, .47 a .49, l. c. yellow, .50 a .51, u. c. round, .56 a .57; Oats .28 a .33, Barley, Pa. .58 a .60; do. East. .61 a .62½; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .6 a .7; *Oil*, linseed, 68 a 69½; *Pork*, mess, 12.50 a ——, prime 11.50 a 12; cargo 10.00 a 10.50; *Rice*, 2.50 a 3.00; *Tabocco*, Kentucky .4 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .18 a .22, half blood .26 a .—; three quarters blood .28 a .32, full blood 28 a .32; unwashed, generally 6 cents less, according to quality.

WILLIAM PRINCE, proprietor of the LINNÆAN BOTANIC GARDEN, offers the following articles at the following reduced rates:

Camellia Japonica or Japan Roses, of the following double flowering sorts, at $3 each; five plants with numerous flower buds now formed, red or crimson, white, striped pink or middlemost maiden's blush or buff, pompone or new blush, red pæony flowered; and the following sorts at $3.50, of same size as above, fragrant myrtle-leaved, atrorubens, anemone flowered or waratah, and also single white and longifolia single red; also Camellia sasanqua rosea pleno, 5 to $6; welbanksiana or pæny flowered, 6 to $8; conchiflora, 6 to $8; cocinea, with scarlet striped flowers on same plant, 6 to $8; rubricaulis, 7 to $8; oleifera, single white, $5; and other varieties proportionably low.

Roses, the finest assortment of 100 superb kinds for $60; and the finest assortment of 50 superb kinds, $35; in both these the Greville superb, and lady Banksian, will be included if desired. *China Roses*, 12 kinds for $10, and 25 kinds for $20. Greville Roses, *Chrysanthemums* (or Artemesia,) 12 fine kinds for $4 50; 24 kinds for $10; 36 kinds for $15; and 50 kinds for $25; in the latter are included nine entirely new kinds lately received from China.

Pæonies, 12 fine kinds for $9; 20 kinds for $18, including the Chinese, double white whitleji, 35 kinds for $50.

Carnations, 12 superb kinds for $10; 25 kinds for $18.75; 50 kinds for $35; 100 kinds for $60.

Iris or Fleur de Louis, 12 fine kinds for $4; 20 kinds for $6; 30 kinds for $10; 50 kinds for $18.

Aureculas, 12 kinds for $12; 20 kinds for $18. Dahlias, 12 superb double kinds for $6, 20 kinds for $10; and a few very rare and extra kinds, 75 cents each, and good double ones 50 cents.

Geraniums, 12 magnificent kinds, including the splendid macanthon, for $10; 25 kinds for $20; and 50 kinds for $36—Orange, lemon, citron, &c. one year's growth, from innoculation, $2; larger size in proportion. Catalogues may be obtained of the subscriber, and orders through him, or direct to the proprietor, will receive attention. All orders executed by him have a *printed heading, and his own or his son's signature to the invoice.*

N.B. A reasonable credit allowed to those who re-vend.

Signed, GIDEON B. SMITH, Agent.

DOGS LOST.

Two young Hounds, black and white. The largest with a feathered neck—lost about three weeks since, near the half-way house, Annapolis road. A liberal reward will be paid to any one who will send them to Col. Amey's, Paca street, Baltimore, or leave information there where they may be found.

ALMANAC.

1829. November.	Sun. Rises.	Sun. Sets.	Length of days.	Moon Rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 14	7 3	4 57	9 54	8 39
Sunday,........ 15	7 4	4 56	9 52	9 36
Monday,....... 16	7 5	4 55	9 50	10 33
Tuesday,...... 17	7 6	4 54	9 48	11 30
Wednesday,.. 18	7 7	4 53	9 46	morn
Thursday,..... 19	7 8	4 52	9 44	0 26
Friday,......... 20	7 8	4 52	9 44	1 21

Moon—Last Quarter, 18th, 3 h. 44 m. Mor.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There is no change in flour or grain, of any moment. Howard street flour is held at $5.37½, and the supply is about equal to the demand—the wagon price continues at $5.25. Wheat, corn, rye, oats and clover seed, sell readily at quotations. Beef on the hoof is very dull, and plenty in Market. Wood continues to advance, and is now pretty high for the season, in this market.

Tobacco:—Seconds, as in quality, 4.00 a 8.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 13.00; wrappery, suitable for segars, 7.00 a 12.00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4 00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week comprise 202 hogsheads Maryland, and 24 hogsheads Ohio—Total 226 hhds.

Flour—best white wheat family, $6.25 a 6.75—super. Howard st. 5.37½ a ——; city mills, 5.00 a 5.25; Susquehanna, —. Corn Meal, bbl. 2.37½—Grain, best red wheat, 1.00 a —;—best white do. 1.10 a 1.12½; ordinary to good, .95—Corn, old white, .46 a .48; yel. .46 a .48; new, 37½ a 40—Rye, .46 a .47—Oats, .28 a .30—Beans, 1.10 a 1.15—Peas, .60 a .65—Clover seed, 3.75 a 4.00—Timothy, 2 a 2.50—Orchard Grass, 2 a 2.50—Herd's, .75 a 1.00—Lucerne .37½ a .50 lb.—Barley, .50 a .55—Flaxseed, .75—Cotton, Vir. .9½ a .10½ Lou.—.11 a .12—Alab. .9½ a .11—Missis. .10 a .12—N. Car. .8½ a .9½—Geo. .9 a .10—Whiskey, hhds. 1st p. .23½ a —; in bbls. .24 a 25—Wool, common, unwashed, lb. .15 a .16—washed, .18 a .20—crossed, .20 a .22—three-quarter, .28 a .30—full do. .30 a .35, accord'g to qual.—Hemp, Russia, ton, $220 a 225; Country, dew-rotted, 120 a 140—water-rotted, 170 a 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — a 5.50—Herrings, No. 1, bbl. 3.75 a 4.00; No. 2, 3 50 a 3.75—Mackerel, No. 1, 5.75 a 6.00; No. 2, 5.25; No. 3, 6.00—Bacon, hams, Balt. cured, .9 a .10; do. Eastern Shore, .12½—hog round, cured, .7 a .8—Feathers, .30 a .31—Plaster Paris, cargo price per ton, $4.00, ground, 1.25 bbl.—Prime Beef on the hoof, $3.25 a $4.50. Pine Wood, by the vessel load, 2.50 to 2.62½; by the single cord, 2.75—Oak Wood, by the vessel load, 3.50 to 3.62½; by the single cord, 3.75 to 4.00.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

(From the New Hampshire Patriot.)

REPORT ON FARMS.

At the late Cattle Show and Fair in this county, Dr. Joseph M. Harper, in behalf of the Committee on Farms, made the following report:

That on the twenty-seventh day of July last, agreeably to public notice given, five of your committee met at the Shaker Village in Canterbury, viz: Joshua Lane, Jeremiah H. Wilkins, Jeremiah Pecker, Simeon B. Little and J. M. Harper, and commenced their pleasant labours with the examination of the farm owned by Mr. John Kimball, of Canterbury.

This farm contains one hundred and seventy-five acres of land, which in a state of nature was broken, rocky and as unpromising as almost any land in the town, and deemed incapable of affording a reasonable profit to the cultivator. It has been under the cultivation of its present owner and occupant for more than forty years. Most of the labour has been performed with his own hands, assisted by his sons, who have not been, like too many young men of the present day, brought up in idleness, with bosoms filled with ruffles, a trouble to their parents, and a pest to society; but they were early taught by precept and example, that to be healthy, wise and wealthy, industry and good economy in time as well as money, were absolutely necessary: that manual labour was no disgrace to *kings* or *peasants*—that all must subsist by the sweat of other's faces, if not by their own. Thus, by the exertions of himself and sons, together with the good economy of his rib within doors, Mr. Kimball has been enabled, with the blessing of Him who will not withhold any good thing from the honest and industrious soul, not only to bring up his family well, suitably educated for all the ordinary concerns of life, with a fair prospect of a competency in old age, but he has had the sweet consolation of being able to support his parents in their declining years; one of whom was, for many years before life closed, blind and helpless. He has not only been able to do all this good, but he has succeeded in making his farm one of the most productive and convenient farms in the county. A good stone wall, from three to fifteen feet thick, is almost the only fence to be found about this farm. The wall is thick from necessity, in order to get rid of the stones. Some of it is very high, with flat stones on the top, projecting over into his pasture, from ten to fifteen inches; forming a good barrier against the intrusion of sheep, an object which every farmer knows to be very desirable, as ordinary stone wall is but a poor security against the invasions of this animal.

Mr. Kimball has about twenty-five acres of mowing, arable and orcharding, being all that his farm can afford by reason of the unevenness of the surface, ledges, fast and loose stones. This has been prepared with great labour; the stones are well cleared off, the surface made smooth, the soil well mixed with manure, and thus made productive.—The whole is enclosed with a good stone wall, in two fields. The committee examined his hay in his barns, which they estimated at twenty tons; it was nearly all of a good quality. He has about two acres of corn, two of wheat, and three of potatoes, all of which look promising. His corn, however, was not as well hoed as would comport with good husbandry, or would be for his present or future profit. Mr. Kimball's pasture is rough and extensive. Most of his land was cleared many years ago, and has since come up to bushes. Instead of cutting them down, and clearing the land a second time for a crop of rye, as is the usual practice, he has cut down the unprofitable part, such as white birch, poplar, &c., trimmed up the rest, cleared away the brush and underwood, and kept out the fire, so that he now has a beautiful growth of ash, oak, elm and sugar maple. Of the latter, he has more than two thousand trees of various sizes, from three to twenty inches in diameter; which, with proper care and a little labour, will furnish the occupant for many years to come with more than a supply of that useful and wholesome article, domestic sugar. Notwithstanding the rich supply of young wood and timber, which he has thus saved, he has a sufficient quantity of pasturing for his stock, which consists of about twenty head of horned cattle, two horses and thirty sheep. It will be proper here to observe, that he has a piece of land at a distance, from which he brings, annually, five or six tons of hay, and also that it affords some pasturing. Mr. K. has no unusual method of cultivating his land or making manure. He ploughs in season, deep and well, plants well and in proper time; then takes good care through the season of what he has planted or sown. His time is not spent in places of mirth and tippling, but on his farm, as it should be. When storms come, he has a shop in which he labours to profit and advantage; and he receives the blessings of his industry as he passes along the journey of life. By pursuing this course, he has been enabled to accomplish all this, yea more. He has erected a large, commodious house, two stories high, forty-two by thirty-two, with an L, or back part for a common kitchen or dairy room—all well finished and painted; he has also all necessary out buildings, all of which are in fine order. He has two barns, several sheds, and every convenience for his stock; also a cider house, in which he makes on an average about twenty barrels of cider annually. He has only four cows, but judging from his cheese, they are of the best kind, as he has many and good cheeses. His garden is neat, well arranged, and contains almost every thing necessary in a kitchen garden, and nothing superfluous. Mr. Kimball has with him two sons, minors; he, with their assistance, carries on his farm, without that slow but certain poison, *new rum*. He also does some considerable work in his shop as wheelwright and carpenter.

Your committee, the same day examined the farms of Amos Cogswell, Esq. and Col. Stephen Moore, both of Canterbury.

Mr. Cogswell's farm contains one hundred acres of land, which in its natural state was rocky, hard and uneven, but most of it of a good soil, strong, but rather wet and heavy. He has about twenty acres of mowing, tillage and orchard land, enclosed in two fields with a stone wall. Both are well cultivated; the stones are taken out, the land well manured and very productive. He has three acres of corn, three of wheat and two of potatoes, all of which were in a flourishing condition. He has two other fields, partly walled, but rather rough; a portion of one of them is low land, which formerly produced little but flags; but by draining, drawing on upland earth, and turning on the water from the hills, has been made to produce a good crop of valuable fodder. The remainder of his farm is pasture and woodland. He has a fine second growth, very valuable for wood and timber, also for the manufacture of domestic sugar, probably several thousand young sugar maples. Mr. Cogswell's buildings are a low house, forty by thirty-two, an L twenty by eighteen, well finished, and all necessary out buildings. He has three barns, large and commodious, and well finished, with every convenience for his stock, which consists of twenty head of horned cattle, two horses and twenty sheep. He cuts about twenty-five or thirty tons of hay, more than one half is of the first quality. He is a taverner, and consumes about six tons in feeding traveller's horses. The whole labour of managing his farm the present season, has been performed by himself, one hired man and a boy thirteen years old, and it is done seasonably in a workmanlike manner.

The farm of Col. Stephen Moore contains one hundred and forty acres of land, a part rocky, but most of it rather light, loamy or sandy land, and tolerably free from stones. Twenty years ago, Mr. Moore took the management of this farm; he found it in worse than a wilderness state; much of it had been cleared, and was overrun with bushes, briars and weeds. There was nothing on the farm that could be called fence or buildings; and he is entitled to great credit for his industry and perseverance; for by these he has succeeded in making this one of the most productive and easily-carried-on farms in the town. He has erected a good and convenient house, two barns, sheds and other out buildings, all of which are in good condition. He has dug out the stone, laid them into good wall, and where stone was wanting, he has made a good fence of chestnut rails. His walls and fences are free from bushes, briars, &c., and his whole farm a sample of neatness and good husbandry. Mr. Moore has a large tract of low, sunken, brook meadow land, which he has cleared, some part of it drained, other parts ploughed, and in some places turned on the wash from the highlands, and so managed the whole as to cause it to produce a good burden of very good fodder for cattle and sheep. Mr. Moore keeps about twenty head of cattle, twenty sheep, from four to eight horses and colts, and makes sixty barrels of cider annually. He has from thirty to forty acres of wood and timber land, which he has cleared from windfalls and underbrush, and it is very handsome and valuable. His upland field contains about twelve acres of mowing and arable land, from which he has cut, the present season, about twelve tons of hay. He has four acres of corn, three of wheat and flax, and two and a half of potatoes. About one half of his tilled land this season, is in his pasture; the crops all look well—part of his corn is very fine, and the land in general free from weeds. Considering the situation of this farm twenty years ago, when Mr. Moore first entered upon it, and what it now is, the improvements have been as great as can be found on almost any farm in the county. The labor has been done by himself and boys. The present season, he has no son with him old enough to assist him much, and the farm has been carried on by himself and one hired man.

Tuesday, July 28th, your committee proceeded to Boscawen, and called on Dr. Samuel Wood, who has a white mulberry tree, 33 years old, from which he has made silk for twenty-three years. The present season he has kept from five to six thousand worms, and reeled about two pounds of raw silk, worth, when manufactured into sewing silk and twist, probably twelve dollars. This is exclusive of the floss or loose silk, taken off the outside of the cocoons before they are reeled, and the seed cocoons, which can be carded and spun to some profit and advantage. So far as your committee have knowledge, (and they believe it to be a fact,) Mr. Wood is the first person in this State, who raised the silk worm or made silk; and in the opinion of your committee, is entitled to a special premium on this account, which they have awarded him, although they think him somewhat faulty in not using his influence to cause the mulberry tree to be cultivated by his neighbors, when he has for so many years been convinced of its utility.

Your committee next, (by invitation) called on Capt. Enoch Gerrish and examined his barn yard, and received from him the following account of his method of making manure, which they consider worthy the attention of every farmer. In August or September he clears his yard of muck, from which he takes annually about two hundred loads, and then carts seventy or eighty loads of mud into it from a meadow, one mile distant. His yard is large, lowest in the middle and the edges so raised, that in the wetest time, nothing runs out of it. On this his cattle lay one year. In dry weather in the summer it is so hard that it will not mire, but in wet weather cattle mire in from one to three feet. In this way he makes two hundred loads of manure yearly, not including the heaps at his barn windows, which he carts out in the spring. By this means, his farm is in a high state of cultivation, and improving every year. Capt. G. keeps twenty cows and makes about two and a half tons of cheese yearly. Here are a farm and dairy worth taking some little pains to examine. Our best farmers may here find something worth their attention, and learn something to their advantage. As this farm was examined and received the first premium the last year, your committee only made a partial examination for their own benefit, and can truly say, they were highly satisfied and well rewarded for their trouble. It is probably the best husbanded farm in the county. Your committee next examined the farm of Captain Moses Coffin, of Boscawen. This farm contains two hundred and fifty acres of rocky, uneven land. The general appearance of this farm, indicated more than an ordinary degree of neatness and industry on the part of the owner and occupant, who, from every appearance, must have at an early time of life, adopted, and steadily adhered to the good old adage, that

> "He who by the plough would thrive,
> Himself must either hold or drive."

Your committee did not, however, discover any extraordinary improvement in agriculture on this farm, but consider Mr. Coffin entitled to much praise for his great industry and perseverance, by which he has succeeded in making manageable and productive, land by nature unfit for any thing except for timber or pasture land. Capt. Coffin has about twelve acres of meadow land, five of which have been redeemed from a sunken situation, producing nothing but flags and water bushes, so that it now produces a great burthen of good fodder.—This has been done by ditching. The other part has been greatly improved by hauling in stones, loam, &c. Mr. Coffin has thirty-four acres of mowing, arable and orchard land, upon which he cuts thirty tons of hay, keeps twenty head of full grown cattle, one horse and sixty sheep. He has, this season, six acres of corn, three of wheat, two and a half of potatoes, all of which look well. He keeps twelve cows and has a fine lot of cheese; has six swine that have been wintered, which show by their appearance, that they have not been neglected, and what your committee were much pleased with, there was a good lot of manure in their yard. His farm is mostly fenced with a good stone wall, for which he has an abundance of materials. Of this fact he appears to be well convinced, (as we had the best possible evidence,) he having drawn stone more than one mile, to fence a piece of pine land, which is destitute of this hard, valuable article for fence. His buildings are a two story house, thirty-two by forty-two, with an L well finished and painted; two barns, one seventy-two by thirty-four, the other thirty-six feet square—with several out buildings, all in good repair. Capt. Coffin's garden is such as does honour to his good judgment in farming generally, as it contains most that is necessary and nothing more.

Your committee also examined the garden of Mr. John West, of Concord. This was on a fine, rich, alluvial soil, well cultivated, containing every thing desirable in a culinary garden. It was free from weeds and cultivated with much taste and good judgment.

Your committee visited the Shakers, and examined their gardens. These are more extensive and productive than any thing of the kind in this county. Their *culinary* garden at the first family, contains more than three acres of land, which is all occupied as a garden, and cultivated in a perfect manner. It contains every variety of plants, herbs and roots, useful or necessary for comfort or health, and they were in the most luxuriant state. Here may be seen in the greatest perfection, the solid, good and real blessings of industry, sobriety and temperance.

Their *botanical* garden is probably the greatest curiosity in agriculture, in the State. It contains about one half acre of land, on which is cultivated two hundred species and genera of roots, plants, herbs and flowers, most of which are of a medicinal nature, and are cultivated in great perfection. It is situated on an eastern slope, the soil is strong and moist, thoroughly cultivated and made rich, with manure. It is thrown up in horizontal beds in such a manner, that the surface of each bed, or section is level, and each section from two to four feet higher than the one below; so that by standing at the easterly or lower part of the garden, it resembles stairs, one section regularly rising above another, through the whole. By this method, they have all the varieties of soil necessary to suit the different constitutions of the great variety of plants and roots, therein cultivated. Dr. Corbett, who has the care of this elegant establishment, is entitled to great credit for his industry and skill in managing this delightful spot, and collecting the great varieties it contains from every State east of the Hudson, as well as from Kentucky and Ohio. His exertions have been attended with that success, which has crowned untired exertions in all ages of the world; and without continued perseverance, nothing great or valuable can be accomplished in agriculture in this northern region. Thus, by his indefatigable exertions, he has succeeded in making this, in a pecuniary point of view, probably the most productive spot of earth in this State. The sales from this spot of land in 1828, amounted to one hundred dollars, and is yearly increasing, as the plants come to maturity.

The last farm your committee examined was that of Nathan Ballard, Esq. of Concord. The observations and remarks made on Capt. Coffin's farm, and respecting the worthy, industrious owner, will apply with great propriety, to Mr. Ballard and his farm. This farm, however, is smaller than Capt. Coffin's tract; in a state of nature, was quite as rude and unpromising. Mr. Ballard's farm contains one hundred acres, and a wood lot about eighty rods distant. He has thirty-five acres of mowing, tillage and orchard land, in a good state of cultivation, nearly all walled in. His improvements have been great for the last seven years, his labour incessant and well directed, and crowned with great success. His fields, which were then rocky, rough and very uncomfortable to mow and till, are now smooth and very pleasant to cultivate; yielding an abundant reward for his toil and exertions. His crops are in a flourishing condition. He has about three acres of corn, three and a half of potatoes and one of wheat. The land is well tilled and free from weeds; the walls and fences are not lined with bushes or briars. His hay was in his barns and was estimated at thirty tons, most of it of a good quality. He keeps from eighteen to twenty head of cattle, two horses and twenty sheep, and sells hay generally. His buildings are neat and well finished, consisting of a low house fifty by thirty; two barns, one fifty-two by thirty, the other, forty two by thirty, and every necessary out building for convenience or profit. His farm is carried on by himself and two small boys, his sons. It may be said of Mr. Ballard with great truth and propriety, that he is an industrious and intelligent husbandman.

A part of your committee examined a field of corn belonging to John George, Esq. of Concord, and although not as large as has been seen in former years, but from the circumstances of the great drought, and the former poverty of the land, we think Mr. George entitled to a premium of $3.00. The ground on which the above crop was raised, has not for years been considered worth cultivation, till Mr. George became proprietor. Much credit is due to Mr. George, for reclaiming said land and for exhibiting so fine a crop, where hitherto nothing vegetable was to be seen.

The following premiums were awarded:

The first premium of twelve dollars, or rather of ten dollars, and one year's subscription of the New England Farmer, is awarded to Mr. John Kimball, of Canterbury.

The second premium of eight dollars, and one year's subscription of the New England Farmer, is awarded to Capt Moses Coffin, Boscawen.

The third, of six dollars, and one year's subscription of the New England Farmer, is awarded to Nathan Ballard, Esq. of Concord.

The fourth of four dollars, and one year's subscription of the New England Farmer, is awarded to Amos Cogswell, Esq. of Canterbury.

The committee also award to Col. Stephen Moore, of Canterbury, a premium of four dollars and one year's subscription of the New England Farmer, for his reclaimed meadow land, special improvements and the general neatness of his farm.

The premium of three dollars, which was offered for the best kitchen garden, is awarded to Mr. John West, of Concord.

For the next best, being two dollars, is awarded to Mr. John Kimball, of Canterbury.

Your committee also award to Dr. Samuel Wood, of Boscawen, a special premium of two dollars, as the first man who planted a mulberry tree and made silk in this state.

Joseph M. Harper, *for the Committee.*

(From the Beaufort Gazette.)

BEAUFORT AGRICULTURAL SOCIETY.

There was a very full attendance of the members of the Beaufort Agricultural Society, on Monday the 8th September.

Sweet potatoes of the growth of 1828, were exhibited in a perfect state of preservation by Mr. Joseph Porter, who obtained a premium for the same of a silver cup of the value of ten dollars. Sweet oranges of the growth of 1828, in excellent preservation, were also exhibited by Mr. Philip Givens, who obtained a similar premium. The written statement of the methods of preservation adopted by Mr. Porter and Mr. Givens, were ordered to be entered on the books of the society, and published in the Beaufort Gazette.

The most discouraging statement of the crops of Sea Island cotton in the vicinity, was rendered to the society by the members present. It was stated that they were one fortnight later than on ordinary years; that they were worse than on any former year (excepting 1825,) that the early plantings were utterly lost, being completely stripped of their pods by alternate rains and drought—that the later plantings, though better, were essentially unpromising, and liable to injury from storm, frost, and caterpillar. Among the members present, were those who cultivated Sea island cotton on Port Royall, St. Helena, Ladies', Datha, Bell, Cat, Came, and Paris islands; as also planters from Kean's Neck, Prince Williams; and there was but one opinion as to the fact that the crop was lost. On St. Helena, Ladies', Cat, Came, and Paris islands, the caterpillars have already commenced their ravages. It is believed that they will spread till they are destroyed by frost.

A committee of inspection appointed two months ago to examine the crops, and report their condition—submitted the following report. That they had visited the various islands in the vicinity; and inspected many crops, and that (even should there be no equinoctial gale, and no further ravage from caterpillars) the crops of Sea island, could not exceed, fifty-four pounds to the acre.*

It was, on motion, resolved—That the foregoing be signed by the President and Secretary, and published in the Beaufort Gazette.

Wm. Elliott, *President, B. A. Society.*

Beaufort, *September* 10, 1829.

AGRICULTURAL SHOW AND FAIR.

Agreeably to a notification heretofore given, the 6th Agricultural show and fair of the Agricultural Society of Albermarle, (Va.) was held in the town of Charlottesville on Friday and Saturday last, the 30th and 31st of October. The *Charlottesville Advocate* observes: the first day was occupied by the exhibition of live stock. In the department of cattle and horses the exhibition was particularly gratifying and encouraging. The improvement in the cattle show beyond any previous exhibition was most obvious and struck every spectator who had an opportunity of making a comparison with any of those which had preceded it; although no stallion was exhibited for premium, the number of fine mares and colts, presented a scene particularly animated, and which placed the recent exhibition of animals of this valuable and beautiful description before any previously held by the Society. But highly calculated as was the Society's exhibition of live stock to excite emotions of gratification and prompt to continued and additional exertions, it is to the exhibition of domestic manufactures in all their beautiful and useful varieties, that our recollection recurs with admiration and delight. The decided and unhesitating judgment of all who beheld it, placed it in undisputed preeminence above any, above all hitherto witnessed in this place. With very few exceptions, as in the instance of the splendid carpet exhibited by Mrs. Page, the perfect flannel presented by Mrs. Clarke, and the beautiful cotton counterpane of Mrs. Rhodes, and Mrs. Simmes' swansdown, the great variety and excellence of the fabrics offered for examination, were such as to confound judgment and to distract choice. It could scarcely be said with any certainty of decision that those that were rejected were inferior to those which were approved The interest excited by the exhibition was gratifying in the highest degree. Notwithstanding the extreme badness of the weather the large room in which it was held was crowded with beauty and fashion, eager to witness, and generous to applaud the interesting and animating competition of the day,

WOOL GROWING—In America.

Mr. Skinner: *Washington Co. Penn. Oct.* 26, 1829.

I saw, with regret, in a late number of the American Farmer, a letter from your highly respected correspondent R. K. Meade, in which he ventures an opinion, that the business of wool growing in this country has been overdone, and that the machinery for manufacturing it had not kept pace with the increase of the flocks of the country. Now if this be so, how are we to account for the fact, that millions and millions of pounds of foreign wools are imported every year? It is true that it comes *after it is made up into cloth;* but still it is wool, and comes in its most formidable shape to our wool growers; because it has the effect of breaking down the American manufacturers and stopping their machinery. This effect we see every day. In the neighborhood of Boston, several manufactories have ceased to operate;—one at Watertown, which manufactured six or eight hundred yards of cloth per week;—one at Lowell, which manufactured nearly, if not quite, an equal quantity;—one at Northampton, of about the same capacity—the Indian-head manufactory about the same;—two at Leicester, which manufactured from two to three thousand yards every week! Here then six large woollen manufactories have ceased their operations within the last three months, which were consuming from eight to ten thousand pounds of wool every week;—and there are undoubtedly others, unknown to me, wholly or partially stopped, especially in New-Hampshire, Connecticut, and New-York. At the manufactory at Salmon falls, in N. Hampshire, where were manufactured from four to six thousand pounds of wool every week, the proprietors have stopped one half of their machinery, and talk seriously of stopping the other half:—and I venture to predict, that every woollen factory in the United States will share the same fate, unless our government will interpose and break up the auctions, take effectual measures to prevent the frauds on the revenue—strike out the accorsed dollar minimum from the late tariff, and curtail the credits allowed for the duties on foreign woollens.

The present chief magistrate can recommend these measures to the next Congress, and should he do so *unshrinkingly*, he will achieve for himself a name as imperishable as that of Edward of England, or Henry of France. No, no, the business of wool growing is not overdone; on the contrary, there should be twenty sheep, or more, for every one now in the country.

The business of sugar making is not overdone *now*—but, reduce the present duty, or *permit the payment of the duty to be evaded*, and the sugar business would exhibit the same results, that we witness in the woollen business. We should very soon hear that the business of sugar making "*is overdone.*"

The business of making coarse cotton goods, was for a little while, indeed, overdone: but as the competition with respect to that article, is entirely among our own countrymen, the matter soon regulated itself. Some manufacturers turned their attention to *finer* goods, whilst others engaged in making goods *for China*, and now every thing is right again.

The thing is quite different with regard to woollens; for when an American is driven out of our markets his place is immediately supplied by a Yorkshireman, a foreigner who has no interest in the country.

In a word, whilst politicians are writing long essays, and making long winded speeches, and the statesman to whom the destinies of our country are confided, are snoring at their posts, our fine flocks are melting away, the capital invested in buildings and machinery adapted to the manufacture of wool, going headlong to ruin, and all the mental and physical energies of their proprietors, are falling a sacrifice.

A Wool Grower.

CULTURE OF SUGAR.

We extracted yesterday from an Augusta paper an article relative to Col. Jones' sugar crop, at Millhaven, in Scriven county. We had the pleasure of seeing Col. Jones in this city last week, and had a free conversation with him on the subject of this new article of upland culture. The information derived from him may not be unimportant to many of our readers, particularly as this gentleman is one of the most scientific planters of our acquaintance. The land he cultivates is pine barren, by no means of the best quality, and which has been tilled for the last twenty years. But Col. Jones, following the example of his father, never has neglected to manure his land, and he cultivates no more of it than he can thus enrich. He therefore never expends labor without being compensated for it, and from his management almost renders himself independent of the seasons; for when they are untoward, there is a stamina in the soil which endures privation, when other of a more neglected character suffers.

His first experiment was made last year, and the product was as fine probably as any ever raised in the state. The past season has been unfavourable, for he stated to us, that his crop last June was no higher than in the preceding year it was in April. But still his returns will be ample. The expense of machinery for preparing the sugar has been exaggerated. Col. Jones' mill, which is worked by water power, including boilers and the rest of the apparatus, costs him less than $1000, and he considers the mill capable of expressing the juice from the product of 100 acres in the season. The additional boilers required for this quantity, would not extend the expenses over $200.

We understand that many planters in Scriven and Burke have directed their attention to this article, and with every prospect of complete success.

[*Savannah Republican, Nov.* 3.

TOBACCO.

Extract to the Editor: *Richmond, Oct.* 16. 1829.

Sir,—I hope you will excuse the liberty taken by a stranger, in asking of you information which may be material in the discussions now going on here.

I wish to be informed of the quantity of tobacco brought from Ohio to the Baltimore market? What is the cost of transportation by wagons? What the estimated cost upon a canal or rail-way? And what effect the supply from Ohio has had upon the price of the article in that market? Your answer to the above inquiries, transmitted to me by mail, directed to this city, will be acknowledged as a favour.

Answered in Substance.

November 4, 1829.

1350 hogsheads tobacco from Ohio in 1829.

This quantity is not considered as having much effect on the price of tobacco in Baltimore.

The price of wagoning tobacco from Wheeling is from one dollar, to one dollar and a quarter per hundred weight. From Lancaster, Ohio, to Baltimore, from one dollar and fifty, to one dollar and seventy-five cents. Some other parts of Ohio, two dollars per cwt. Cost of transportation on the railroad, when completed, *four cents per ton per mile*—on canals, unknown. Average annual crop of Maryland tobacco, about 25,000 hhds.—estimated crop of 1829, 18,000.

HORTICULTURE.

CULTIVATION OF THE VINE.

In our advertising columns will be found the proposals of Mr. Loubat, the proprietor of an extensive vineyard in the neighbourhood of the city of New York, to furnish grapevine roots upon reasonable terms to subscribers. To encourage those who wish to introduce the vine into North Carolina, we state, that of six or eight hundred plants ordered by the editor of this paper for several individuals in different parts of the state, we have heard that almost all budded finely and grew to the length of several feet, notwithstanding they were not received till the season was almost too far advanced to set them out. There is no doubt that they will bear fruit during the next season.

An enterprising gentleman of Chapel hill, has 400 vines which he procured from another vineyard near New-York, last spring, some of which, in consequence of his strictly following the directions for planting, &c. have already grown to the length of eighteen feet. There is every inducement of a public and private nature, to those who can make it convenient, to engage in this interesting and profitable culture.

[*Fayette Observer.*

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* About one third of a fair crop.

INTERNAL IMPROVEMENT.

REPORT

To the Stockholders of the Baltimore and Susquehanna Rail Road Company:

(Concluded from p. 278.)

We refer the stockholders to the report and estimates heretofore made, of the probable income to be derived from *the trade* of the road, when completed as far as the limestone regions.

A more detailed estimate has since been made, which shows with as much certainty as can be given to any calculation, that the revenue upon this first division of the road would exceed $25,000 per annum.—This conclusion is drawn from the present state and condition of the trade, and upon the quantity of transportation *now* brought from that region of country to the city.—The increase of this trade will probably be trebled in a few years by the facility of communication afforded by the Rail road, particularly in the heavy articles of lime and marble, the cost of transporting which would not exceed one sixth of the present charge. The Quincy Rail road, of nearly equal extent with the first division of the Susquehanna road, was made for the sole purpose of reaching the granite quarries, and has been found to afford a large profit upon the capital laid out in its construction; in addition to the superior value of our marble quarries, we should embrace the whole trade of the factories on Jones' Falls—the whole of the lime trade, and the produce of an extensive and highly cultivated country, besides a large number of passengers.

The resolution of the stockholders at a general meeting in May last, contemplated the immediate completion of the road to the Maryland line, under the full conviction that before it should reach that point, the legislature of Pennsylvania would have passed the charter, or a similar work would be undertaken by a company in Pennsylvania, and thus the original object of forming a communication with the Susquehanna would be effected. Nothing has occurred to impeach the correctness of this opinion—on the contrary, since the last session of the legislature of that state, the citizens of York county have subscribed the capital of a company to improve the navigation of the Codorus from York town to the river, which when completed will leave a space of only *eighteen* miles between Baltimore and the Susquehanna to form a complete and perfect communication between the two points. Can any one for a moment believe that such a barrier will continue to exist at the expense of the interest of a large portion of the people of that state, and involving a degree of folly and absurdity, which it would be an insult to attribute to any enlightened people and a just legislature? The ties which bind the Susquehanna country to Baltimore, are too strong to be broken—local jealousies and prejudices may for a time prevail over just and sound views of state policy, but their reign will be but short; trade will seek and it will find its natural market, and any plan of improvement or system of legislation which seeks to divert or attempts to force it out of its natural channel, is not only unwise in itself, unjust to the community at large, but will, in the end, defeat its own object.

To look forward, therefore, to the extension of the road to the Susquehanna river in the course of a short time, is natural and ought to engage the attention of the stockholders. It is a subject which has constantly occupied the mind of the board, and whose importance cannot be too much dwelt upon; laying aside their interest as citizens, anxious for the prosperity and increase of the trade of the city, and viewing it as mere stockholders, who look alone to their individual interest and the revenue to be derived from the investment of capital, it presents the fairest prospect of certain and abundant returns of dividends upon the capital expended.

We have, therefore, pointed out the nature and extent of the ascending and descending trade, which must find its way to and from the seaboard upon this road, and we refer the stockholders to our former reports upon that head. But little has yet been said upon the profits to result to the stockholders from the transportation of passengers alone, an item perhaps of equal if not greater importance than the transportation of produce and merchandise.

A brief examination will show that it must become the great line of communication not only from north to south, but from the east to the west, and in the end supersede all other modes of communication.

From Baltimore to York by the Rail road will be about sixty miles, from thence to the Susquehanna river at York Haven, in a northerly direction, is ten miles, and from York to Columbia is the same distance; from Columbia to Philadelphia, is eighty miles, over which a Rail road is now constructing by the state of Pennsylvania, and is to be extended to the borough of York. The whole distance by the Rail road from Baltimore to Philadelphia will be but one hundred and fifty miles, and if it be conceded that passengers will prefer that mode of travelling which is safest and cheapest, and equally expeditious with any other that can be, or has been devised, it is manifest they will prefer the Rail road route to any other. Supposing the highest rate of charge allowed by the charter to be adopted, the cost of travelling 150 miles, at three cents per mile, would be $4.50—but it would be fairer to put it down at two cents per mile, which would make the cost of a trip three dollars. The journey can be performed in safety, in a day and part of the night, in carriages affording every convenience or luxury that necessity or refinement could desire, affording at the same time the additional gratification of passing through one of the finest and most highly cultivated regions of country in the United States. To these inducements for a preference of this route, may be added other attractions, which though of minor importance, will still have influence in the choice. Carriages of all sizes, and fitted up in every variety of style, to start at any hour, travel at any speed, and stop at any point to suit the convenience or pleasure of the traveller, will be at the command of all who desire them. All these considerations combined, surely present advantages, which, so long as men consult their interest, their comfort and their safety, will insure to this mode of transportation a preference over all others that human ingenuity has ever yet devised.

We shall not attempt to estimate the amount or number of passengers per annum on this route; or the immense increase of it which the facility of communication will produce. Not only the intermediate country occupied by a large, enterprising and increasing population—studded with flourishing villages and towns, that are fast approaching to be cities, will send forth their thousands and tens of thousands, but the grand improvements of Pennsylvania, stretching to the north and the Ohio, will also pour down its active and busy people to the cities on the Atlantic border. The intercourse between two such places as Philadelphia and Baltimore is not to be measured by any estimate or fixed by any rule of calculation, neither is it necessary for our purpose to attempt to reduce it to any precise number.—Let the stockholder, who will take time to look at the subject which our limits will but permit us to glance at—suppose the travelling from the east, the west and the north to be one, two or three hundred thousand persons per annum, or any other number within the most limited estimate he may adopt, and then apply the charge for transportation at two or three cents per mile, the conclusion is no less astonishing than it is true, and the mind will naturally hesitate in adopting the result to which the facts and figures inevitably conduct him.

It is proper to state, that since the last general meeting of the stockholders, at which it was resolved to commence the work, the board availed itself of the occasion of a meeting of the City Council to tender to them the stock allotted by the charter for the Corporation—the joint committee of both branches reported, "that in consequence of the present being an extra session, and the subject before them one of such high interest to the city, and requiring a greater length of time than the session would allow, and being desirous of giving it that deliberation which it requires," it was resolved that the subject be referred to the next annual session. The opinion of the City Council as expressed in their proceeding will no doubt insure a due consideration of the subject at the regular period for the meeting of that body. The intelligence and impartiality of the City Council may be relied upon with safety and confidence. If the views of the board be correct it will be found that the work in question is one not only of general interest to the community at large—but that each portion of it will derive a particular advantage from its operations.

Approaching to the City boundary on the north, and at an elevation of ninety feet above tide, it can with perfect facility be carried to any part of the City. To the *west end of the City* it can be conducted to the highest point at the public property, formerly the old alms house.—*To the centre of the City*, it can be carried down the valley of Jones' Falls, on either the east or west side to the east side of the Falls, at the junction of Madison street, and from thence on the eastern side of the Falls along the avenue laid out upon the City plot, down to the City block—from the same point (the junction of Madison street and the Falls) it can be carried along in a line with Madison street or lower down towards the junction of Hillen and North streets, and from thence to the valley of Harford run, and thence down that run either upon its margin, or by a structure thrown over the stream, to its termination at the public property. So in like manner may a branch of the road be constructed from the point of intersection with the Harford run, to the eastern part of the City by a line drawn from the point of intersection, and pursuing the eastern branch of Harford run and the valley at the head of it to the ravine of Harris' creek, and thence on the western margin of that water to the basin.

All these routes are entirely practicable, and at a moderate expense, arising from the circumstance of the great elevation of the road above tide—there will be no deep cutting, tunnelling or filling, and but a single bridge to be thrown across Jones' Falls, to accomplish the desirable object of terminating the road at the most convenient and important points of the City.

These considerations cannot fail to have due weight in the deliberations of the City authorities, as they entirely remove all ground for local jealousies or sectional and conflicting interests between different parts of the City.

It cannot fail too, to suggest itself to the members of the City Council, that the stockholders in this company, have embarked in a work admitted to be of great public importance and of high interest to the welfare and prosperity of the City—and that in the prosecution of this work, they are about to invest a capital of many hundred thousand dollars; they are moreover large holders of property and pay into the treasury of the City a large amount of taxes, equal at least to one fourth of the whole amount of the annual revenue arising from direct taxation, and are thus made large contributors to the public stock in the great western road, to which the City have contributed a subscription in stock to the amount of $500,000.

Independently, therefore, of the nature of the work and its identity with some of the most important interests of the City—it would seem, that a subscription to the stock of this company, on the part of the Corporation, is no less the dictate of impartial justice than it is of sound policy.

The instalment called for upon the 15th of September and payable on the 15th of November, will be sufficient for the purposes of the Company during the winter, and enable us to make the necessary preparations for vigorous and extensive operations early in the spring. From the experience we have had of the nature of the work and the difficulties to be overcome, we are confident that the road to the limestone region can be finished and put into full operation in twelve months from this time.

By order and on behalf of the board,

George Winchester, *President.*

LADIES' DEPARTMENT.

MATERNAL INFLUENCE.

That gentlest of all living things—a mother.

No sight can be more tender than that of a pious mother, fastening the look of anxious affection upon the mild and beautiful form of her infant offspring as it lies upon her knees in balmy slumbers. What are the thoughts that seem to struggle for utterance in that breast warmed by instinctive passion? What are the bodings mingled with prayers which vibrate on her placid frame? What anticipation transports, what dread chills, what glory brightens, what gloom obscures, the confused visions of her mind? She seems to address the helpless loveling, and to say, "My sweet little stranger, to what end art thou cast upon the trials and perturbations of a treacherous world? Art thou born to happiness or misery, to honour or infamy, to enjoy the sweets of friendship or the cruelties of malice, to taste the delights of fruition, or grasp the throne of disappointment? Will virtue preside over thy ways, and wisdom direct thy steps, and joy fill thy cup; or wilt thou be abandoned to those passions which shall tear thee like vultures, and consume the last particle of thy happiness? Peradventure the assassin's dagger awaits my boy, or the fathomless depth contains his tomb, or pestilence comes with insidious step to meet thee, or dismal penury is preparing for thee its ill-advising suggestions? Will it be thy unhappy lot to forget God thy Maker, to rush reckless and inconsiderate into the way of transgression, and thus to ruin thy precious soul; or wilt thou be persuaded to repent and turn to God with all thy heart, and thus secure the prize of immortal joy? *What manner of child wilt thou be?*"

She can imagine but one relief for these portentous apprehensions; and that is found in the guard with which religion fortifies the abodes of youth, in the shield which virtue places upon the unsuspecting form of juvenile infirmity. This defence is more than valiant bands, more than the treasures of opulence, and stands instead of parental care, of friendship's sweets, and fortune's smile. Her first wish, therefore, is to imbue the tender heart with wisdom's restraining virtue, and to turn upon those powers which contain the rudiments of future manhood, the salutary beam of the Sun of Righteousness.

Examples of maternal success in alluring to virtuous determinations the unformed principles of sons and daughters, stand forth in the brilliant records of goodness and piety. How much the cause of truth, of humanity, and of all that conduces to the dignity and happiness of man may be indebted to this instrumentality, is not to be known now; but that great revealer of secrets, the last day, will do justice to this important subject, and will exhibit its astonishing connexion with the whole history of man.

I feel persuaded, Mr. Editor, that you will have no objection to record one instance more which has come under my knowledge, of the happy results of a mother's influence in drawing from the snares of vice, and in directing to the *path of life*, a son whose untoward nature afforded but little promise of success. The youth alluded to, inherited from nature a large portion of those passions which seek an early master over all those in whom they abide as inherent qualities; and which are not apt to yield to the feeble restraints of discipline. He was indeed at no time so far abandoned to obduracy as to lose all sense of respect for God and his parents. But *a heart deceitful above all things and desperately wicked* hurried him on into scenes and excesses, which were well designed effectually to obliterate from his mind every impression of that pious counsel in which he had been nurtured. When sufficiently advanced in life to enter into scenes of dissipation, his greatest pleasure lay in the company of those who paid no respect whatever to the institutions of religion. Among them he heard the name of God profaned, saw the Sabbath turned into a season of unhallowed amusement and recreation, and became familiarized to various habits of an ungodly life. On one occasion when he had prepared himself for the brainless enjoyment of a horse race, and was issuing forth flushed with the expectation of the pleasure that he was to realize among his jovial companions, and their flowing bowls, he was met by the then unwelcome form of a grieved, anxious mother. The tear which was beginning to roll down her pensive cheek told him plainly enough the meaning of that unexpected interview, and imparted awe to her presence which dampened his headlong ardour. She improved the moment to warn the impetuous youth. The enticements of sinners were pourtrayed, the easy descent to the gulf smoking with the ruin of human wretches was pointed out, and the voice of parental authority, faltering with grief, demanded the prompt relinquishment of his mad design. He remained for a time motionless and disconcerted. But after recovering a little from his embarrassment, in order to mitigate the affectionate solicitude which throbbed with rapid pulsations through a parent's aching heart, he promised her that this should be the last time he would ever urge his way to such a scene. The promise, however, was forgotten almost as soon as made, and the tumult of pleasure speedily drowned the voice of maternal expostulation.

That mother, who thus saw herself in a manner deserted by a profligate child, who perceived that her kindest entreaties passed like the transient gale over the heart of the fickle youth, still did not intermit her prudent efforts to arrest and restrain his infatuation. After he had violated a solemn promise, and had shown no symptoms of compunction or regret, she might have concluded it a hopeless experiment to use any further endeavours to control or persuade him. But though often disappointed, she did not cease to interpose, betwixt all the intervals of his sober reflections, reproofs mingled with tears and kindness.

After the lapse of a little time this young man was required, in the prosecution of business, to take leave of the parental roof, and to make his abode among strangers. Even then he continued a course of thoughtless living, and seemed to harden himself in the wilful rejection of every serious thought. On one evening, after a scene of mirthful levity, the thought of a distant mother stole upon his mind, and found a moment's indulgence. It rolled gently and softly upon his spirit, like a remote sound which the din of the day had drowned, but which the silence of the night permitted to reach his thoughtless sense. With the idea of a grieved, neglected parent, was associated the remembrance of her tears, her importunate admonitions, the persevering diligence in casting obstacles in his way to destruction, and also his repeated promises. The impression was deep and salutary. He was agitated during the night by awful apprehensions of an impending ruin, and the still more dreadful fear that he had now to deal with that God whom his crimes and ingratitude had rendered inexorable for ever. The resolution, however, was deeply fixed and imprinted on his mind, that he would break off his sins, and pursue a life of rectitude and sobriety. It pleased God at the same time to make his heart soft, and to incline him to the ways of righteousness. The pious counsels of his mother came fresh to his recollection. His soul was melted into deep contrition, and he soon conveyed to the delighted ear of that affectionate parent, who had been so long afflicted by his hurtful levities and sin, the pleasing intelligence of his repentance towards God, and faith in the Lord Jesus.

[*Columbia Star.*

MISCELLANEOUS.

(From the American Turf Register and Sporting Magazine, No 3.)

NATURAL HISTORY.

The interest connected with the animal whose natural history we are now about to sketch, is of a very different order from that which we have discovered in the two preceding. The *fox* is not the *friend*, but the *enemy* of man; as such we inquire into his history, to know his habits, detect his wiles, and to destroy him. In another respect, however, he is peculiarly interesting to the sportsman. He ranks, in the classification of naturalists, as follows:

Class, Mammalia, &c.—*Order*, carnivora, &c. *Family*, the *cynossii* or *canine race*. *Genus*, Canis, &c. The characters of which we have given in the preceding number. The present species is the

FOX (*C Vulpes.*)

The fox, which, in numerous varieties of colour, and differences in size, inhabits all the northern and temperate regions of the globe, has a broad head, a sharp snout, a flat forehead, eyes obliquely seated, ears sharp and erect, a body well covered with hair, and a straight, bushy, and somewhat pointed tail. Its predominant colour is yellowish-red, or yellowish-brown; a little mixed with white or ash colour on the forehead, shoulders, hind part of the back, and outside of the hind legs. The breast and belly are cinereous-grey, or whitish grey; the tips of the ears and the feet are black; the head is larger than that of the dog, in proportion to the size of the body, the ears are shorter; the tail much larger; the hair longer; and the eyes are more oblique. The intestines too, particularly the cæcum, are more capacious; and the cutting teeth of the jaw have no lines or furrows, like those of the dog and wolf. Another mark of distinction is its smell, which is very strong and offensive. It utters a yelping kind of bark, consisting in a succession of similar sounds, concluding with an elevation of the voice. In disposition it differs greatly from the dog, for it is tamed with difficulty, is never completely reclaimed, and is a stranger to the exercise of generosity and kindness. Yet, notwithstanding these points of discrepancy, it is a well established fact, that the two species have been known to breed together under certain circumstances, and produce a mongrel race, (see Godman's Amer. Nat. Hist.) The females of this species produce only once a year and have from three to six young at a time. They are brought forth blind, and continue growing for about eighteen months. In its first year, the fox is called a *cub*, in the second a *fox*, and afterwards an *old fox*. If the dam perceives that her place of retreat has been discovered, she carries off her cubs, one by one, to a more secure habitation.

The fox sleeps much during the day, lying like the dog, in a round form. Indeed he may, in some degree, be considered a nocturnal animal; for in a strong light the pupil of the eye contracts, like those of the cat. In clear and very warm weather, he may sometimes be seen basking in the sun, or amusing himself with his fine bushy tail. Crows and other birds, that justly consider him as their common enemy, will often give notice of his presence by the most clamorous notes, and follow him a long way from tree to tree, repeating their outcries. The fox lives upon an average thirteen or fourteen years.

This animal, we need scarcely mention, is proverbially celebrated for his cunning; and, although this feature in his character has given rise to much exaggeration and fable, his proceedings are certainly more under the guidance of craft and subtlety than of courage, or a spirit of enterprise. He chooses his habitation amongst brambles, woods, and thick underwood, preparing his bed under hard ground, the roots of trees, or similar situations, where he can contrive proper outlets to escape from danger. He does not always take the trouble of making a hole for himself, but often procures accommodation by dispossessing the cleanly badger, which he is said to do by ejecting his fœtid urine into this animal's burrow. His lodge is seldom remote from the habitations of man, and often in the neighbourhood of some farm-yard. He listens to the crowing of the cocks, and the cries of the poultry, scents them at a distance, selects his time with judgment, conceals his road as well as his purposes; slips forward with caution, sometimes even trailing his body, and seldom makes a fruitless expedition. If he can either leap over the walls, or creep in underneath, he ravages the yard, puts all to death, and retires softly with his prey, which he conceals under leaves, or carries off to his kennel. In painting the confusion of a farm-yard, when a fox had seized a favourite *cock*, Chaucer, with much humour, says:

> "———— after him they ran,
> And eke with stavis, many another man
> Ran eall our dogge Talbot and eke Garlond;
> And Malkin with her distaffe in her hond,
> Ran cowe and calfe and eke the very hogges.
> The duckies cried as men would them kill,
> The geese for fear flewin over the trees;
> Out of the hives came the swarme of bees."

In a few minutes he returns for more, which he bears away or conceals in the same manner, but in a different place. In this way he proceeds systematically, till the progress of the sun, or some movement perceived in the house gives him warning that it is time to suspend his operations, and to retire to his resting place for the day. He digs out rabbits from their warren, detects the nests of quails and partridges, seizes the mothers on their eggs, and thus destroys a great quantity of game. In procuring young rabbits from their burrows, he follows their scent above ground, till he comes to the end where they lie, and there scratching up the earth, descends and despatches them. In default of other victims, he makes war on rats, serpents, lizards, toads and moles, of which he consumes a great number; and with which, like the cat, he plays before he devours them. When urged by hunger, he will also eat insects, or roots; his drag is often struck upon at the root of the persimmon, where he goes to feed on the fallen fruit; if near the coast, he will seize on crabs, oysters and other shell fish. He manifests a predilection for grapes, and has been a destroyer of vineyards from the earliest times; "take us the foxes, the little foxes, that spoil the vines," it is said in the Song of Solomon. He is fond of sweet things, and will boldly attack wild bees to get at their stores. Assailed by swarms that fasten on him with their stings, he retires, but only for a few minutes, rids himself of his opponents by rolling on the ground, and crushing all that stick to him, and then returns to the charge, and devours both wax and honey. Though sated with food, his active foresight will often prompt him to prolong his researches, less with the intention of discovering fresh booty than of exploring the details of his future resources. Thus he frequently returns to the various holes which he had at first cleaned, surveys them with much precaution, enters into them, and slily examines their different issues. With cautious slowness he approaches objects that are new to him, and which, on account of their novelty, excite his suspicion and distrust. A favourite lure will ensnare him "in the days of his inexperience," but, when apprised of its nature, the same expedient becomes unavailing. He seems to smell the very iron of the trap, and carefully shuns it. If he perceive that the means of ambush are multiplying around him, he quits his place of residence, and retires into some more secure quarters. Man, with all his reasoning and machines, requires, himself, much experience, not to be over-reached by the prudence and stratagems of this wily quadruped. If all the issues of the kennel are beset with snares, the occupant scents and recognises them, and, rather than fall into them, exposes himself to the most cruel and protracted privation of food. This state of alarm in confinement is neither mechanical nor passive; for in the meanwhile, he leaves nothing untried to escape from dangers. If he has been taken by one leg, in the trap, he will break it with great resolution, and never cease his exertions to regain his liberty. Somerville thus notices the fact:

> "———— by the indented steel
> With gripe tenacious held, the felon grieves,
> And struggles, but in vain; yet oft 'tis known,
> When ev'ry art has fail'd, the captive fox
> Has shar'd the wounded joint, and with a limb
> Compounded for his life."

In the fox, in short, as in the wolf, we cannot but remark an aptitude to acquire habits, and to be regulated by his reflections, on existing circumstances. Where no war is waged against him, he is comparatively ignorant and careless of his conduct; but when the apprehension of pain or death, exhibited under various forms, has produced multiplied sensations, which become fixed in his memory, and gives rise to comparisons, judgments and inductions, he acquires skill, penetration, and cunning. If the imprudence and thoughtlessness of youth frequently make him deviate from the right path, the experience of age corrects his wanderings, and teaches him how to discriminate true from false appearances.

From the character which we have thus been led to ascribe to the fox, it is not much a matter of wonder that he should be persecuted by man; and that to avoid this persecution he should have recourse to all sorts of stratagem. But experienced huntsmen alone can know the various shifts to which he has recourse for salvation, when hard pressed in the chase—how he will run his foil; leave his course to pass through a flock of sheep, or herd of cattle; or swim the water course, and walk the top rails of the fence for many pannels, to put at fault and confound his pursuers, often occasioning loss and perplexing difficulties, that nothing but the most sagacious old hound can unravel and "hit off." It is these stratagems, however, that create intense anxiety to the sportsman, and give variety and interest to the chase, the most manly, healthful, and at the same time useful sport, in which a gentleman can engage.

The following are the species belonging to the genus *canis*, that have been described by naturalists as varieties of the fox.

1. The Isatis or arctic fox, *canis lagopus;* Lin. Godman's Amer. Nat. Hist. vol. 1, page 268. It inhabits the highest northern latitudes.

2. The antarctic fox, *C. vulpes australis*; Fernand,—wolf-fox of Bourgainville, inhabits America and the Falkland islands.

3. The black or silver fox, *C. argentatus;* Godman, *ubi supra*, page 274. Inhabits throughout the northern parts of America and the north of Asia.

4. The red fox, *C. fulvus;* Desm. Godman, page 276. This species is found in the middle and southern states of our union.

5. The grey fox, *C. cinereo-argentatus;* Gmel. Godman, page 280. Is met with throughout the United States.

9. The swift fox, *canis velox;* Say. Long's Exped. to the Rocky mountains; vol. 1. page 486. This interesting species inhabits the open plains which extend from the base of the Rocky mountains towards the Missouri river.

7. The cross fox, *C. decussatus;* Geoffrey. Inhabits North America; it is considered by Godman to be a variety of the black fox, and is represented by our wood cut at the head of this article.

8. The corsac fox, *C. corsac;* chiefly inhabits the Great desert between the Ural and Irtish, in Asiatic Russia

9. The desert or Karagan fox—is found in the deserts belonging to the Kalmucks and Kirgises.

10. The brant fox, *canis alopex;* Lin. Is found in Europe, Asia, and America. A Pennsylvania brant fox is described by Pennant.

11. The coal fox, *C. alopex Europeus;* the *charbonnier* of Buffon, inhabits Burgundy, in France.

12. The three coloured fox, *C. tricolor;* Geoff.

13. The cancrivorous fox, *C. cancrivorus;* Geoff.

14. The culpeu fox, *C. culpæus;* Molina and Desmarest.

15. The Egyptian fox, *C. Œgyptius;* Geoff.

16. The sooty fox, *C. fuliginosus.*

THE FARMER.

BALTIMORE, FRIDAY, NOVEMBER 20, 1829.

☞ Nothing, it will be admitted, within the whole range of our contemplation is so well calculated to excite the deep solicitude of parents, as the *education* of their children; nor is there any thing in which we are liable to such grievous imposition.—The task of instruction is one of the most irksome, as well as responsible, that any one can undertake. When conducted conscientiously, it is worthy of the highest honours, and parents commit a vital error as regards the dignity and happiness of their children, and the primary interest of society, when they fail to award the highest respect to instructors, who imbue the minds of their off-spring with useful learning and virtuous principles. On the other hand we know of no class, in all the variety of impostors, who so richly merit the public scorn as those *charlatans*, of whom there are, God knows, too many; who undertake the noble office of teaching youth, with high sounding promises of capacity and devotion; and who pass them almost at a full gallop through every author, utterly regardless of what they really learn, indulging their idle and flattering their childish propensities, content if they receive *their own quarterly stipend.* When the time has expired that the fond parent, perhaps some widowed mother, flatters herself that a solid foundation has been laid for useful learning and future eminence to her son, behold he has *scarcely a smattering of any thing!* The worst, most felonious, of all robbery, has been committed by him, who professed to be his friend and instructor: he has been robbed of *precious time*, that no money can recover, no effort restore; and instead of a solid basis, on which to rear the most precious of all possessions, an enduring character for talent and public usefulness, he has not the means whereby he can hope to lay claim for any valuable acquirement, or means of distinction. Of all undertakings, there is none in which there are more miserable failures, none in which more scandalous and baleful impositions are practised, than in the numerous projects for private and public instruction in this country. It has often been with the editor of this journal, an object of anxious and painful consideration on the public account. Some substitute capricious brutality for wholesome and regular discipline; some rely more on numerous prayers than on systematic instruction; and of late, it has been too much the fashion to amuse the public with gymnastic exercise to strengthen the body, in place of rigid and well directed study to give vigour and consistency to the mind. We mean to cast no reflection here on any particular establishment, public or private. Nor did we mean to have introduced with so many remarks the following circular; but the subject is one that cannot be thought of without exciting the most anxious feelings.

It remains only to say, that of all the chances that we have seen presented, none has offered in our estimation so great a certainty as is here held out of accomplishing what is proposed; and especially that which we regard in the present, and probably future circumstances of our country, as of the *most incalculable value to American youth;* we mean a *practical speaking knowledge of the French and Spanish languages.*

The chief of the Lafayette Institution, Mr. Le Page, has resided with the editor for more than twelve months; was reared in Paris, where he received the best and most polished classical education; is patient, and even fond of literary labour. The Professor of the Spanish language, is a distinguished scholar, a native of the country, and known as an eminent instructor in the language. Mr. Holmes has ample experience and reputation as a teacher of English, Latin, and Greek. Children coming from a distance can get boarding in respectable French families, and the whole expense is estimated at present not to exceed $250 for board, instruction, washing, books, and stationary.

LAFAYETTE INSTITUTION.

To the parents of Baltimore:

Having received the kindest encouragement from the respectable citizens of Baltimore in my employment as a teacher of the French language, I am induced to submit to them the plan of an institution for education, which I flatter myself may prove advantageous to youths. I have been led to believe that an establishment of this kind is desired by many parents and guardians; and if, after explaining my views, the plan should meet the approbation of the judicious, I shall hope to receive a share, or rather a continuance, of the public patronage.

From the happy situation of Baltimore for trade, its commercial relations have become very numerous and extensive. Those with France and its colonies, and with the new South American republics, are not the least important. In such circumstances, the French and Spanish languages ought to be an essential and principal object of study to such boys as apply themselves to commerce and navigation, as well as those who pursue the arts or a profession The necessity for this is more felt every day; and as it is impracticable for the most part, as well as otherwise disadvantageous to educate boys abroad where they may acquire these languages in the countries where they are spoken, and often nearly as difficult to throw them into such society at home as may supply the want of this advantage, the next point is to ascertain in what mode these languages can be perfectly acquired by them in their own country. With this view, I submit the following results of some observations of my own.

The method heretofore followed in teaching languages has certainly not been the best. I would not, however, be thought to censure by this remark the highly respectable teachers of this town: on the contrary, I cheerfully render my testimony to their talents and zeal. The defect I speak of is the result of custom and usage, to whose empire instruction, like every thing else in the world, is in some degree subject. In the schools, the principal branches of instruction are Greek and Latin. French, Spanish and other modern languages have but a subordinate consideration; pupils usually receive there but three lessons a week in those languages, of one hour each; and thus it may, and often does happen, that a boy instructed in this way during one or even two years, although he knows some syntactical rules of grammar, is, however, from the want of practice, unable to express the most common forms of speech in those languages. Every body must have seen many examples of this.

This inefficacy of the old system renders necessary the introduction of a new one. The acquisition of the modern languages, especially French and Spanish, must be effected by a more constant and sustained application to them, and particularly by the *unremitted practice of them in conversation.* If a contrary system had not actually been pursued in point of practice, it might seem unnecessary to say that the *only* way to acquire a language, is the practice of it.

Believing, then, that a school or institution more especially devoted to the study of the two languages spoken of, and conducted on the plan alluded to, is wanting, and would succeed in this city, I purpose to form such an establishment, in which the *French* and *Spanish* shall be taught on the best principles, and the teachers will especially oblige the pupils to the constant practice of them. This mode of teaching these languages will be a principal point in the school; but as it is its aim to educate such as propose to embark in commercial or other industrious pursuits, it is intended to add *Mathematics, Geography, Bookkeeping, Drawing and the other branches of an ordinary education,* together with *Latin* and *Greek;* and also (should the establishment acquire the desired increase and stability) *Italian, German,* and *modern Greek.*

I shall, myself, attend to the teaching of French, and hope that my experience in that department of instruction will insure me some success.

I have associated, in my enterprise, two gentlemen, Senor Preto and Mr. Holmes, both well known in this city, and combining high character with very remarkable talents and experience. The first, a native of Madrid, will give instruction in the Spanish; and the second, a professor from the University of Cambridge, will teach English, Latin and Greek.

The other branches, in like manner, shall be attended to by persons of science and personal respectability.

The establishment will have my special superintendence. Having at heart the interest of those who may commit their children to my charge, I venture to promise the strictest performance of duty in every department. The school will be managed according to the best methods pursued in Europe, aiming at regularity without rigor, or any punishments but such as may be approved by parents. It shall be open every day (Sundays and the afternoons of Saturdays excepted,) from nine to one, and from three to half past five; and will commence on the *first of December next*, at the corner of Fayette and North streets, near the City Hotel.

Having come to this country under the recommendation and protection of that venerable defender of liberty, and propagator of intelligence, the noble Lafayette, I may properly put my establishment under the credit of his name; and purpose, therefore, to call it The Lafayette Institution.

Due notice will hereafter be given of the price of tuition, these depending on future circumstances. I take the liberty to add, that in the project here submitted, I hope I am animated but by the desire of contributing somewhat to the cause of education. Having had no reason to complain of the want of patronage, I should not abandon my present pursuits, were I not tempted by the hope of creating a useful seminary of education; and by teaching in twenty or twenty-five months, some branches at least, which often occupy in their attainment, five or six years; do something for the advantage of the community, and acquire some slender title to its acknowledgments.

Communications to be addressed to me at the City Hotel. Leopold Le Page.

The Question Decided.

White population alone, the basis of Representation in the House of Delegates of Virginia.

Mr. *Stanard* concluded the argument which he commenced on Friday.—Mr. *John Randolph* then rose, and in a speech of two hours' length, characterized by all that pungency of sarcasm, which usually distinguishes that gentleman's remarks towards his opponents, he sustained with great ability the principle of the compound basis, of population and taxation, according to the amendment of Mr. *Green.*

Mr. Randolph having concluded his remarks, the question was taken, and carried by a majority of *two* in favor of *white population alone as the basis of Representation!*—the vote being for white population alone 49—for population and taxation combined 47. The majority was thus constituted: the nine western districts, 36; Loudoun districts 4; Albemarle district 4; Bedford district 3; and Messrs. *Cabell* and *Stewart* of the Pittsylvania district 2—49.

Mr. *Madison,* we were delighted to hear, sustained by his vote the *compound* basis of population and taxation.

Before the Convention adjourned, Mr. *Scott*, of Fauquier, moved an amendment to make the basis in the Senate, *taxation exclusively.* [*Norfolk Beacon.*

Latest Foreign News.

By arrivals at New York, we have intelligence from Liverpool to the 17th October. Peace was concluded between Russia and Turkey, on the 14th September, and the treaty is published in the London papers. The following is a brief abstract of that instrument, by which it will be seen that the result of the war is nearly as important to the whole commercial world as to Russia herself, as the free navigation of the Black sea is secured to all nations in amity with Turkey.

The treaty of peace consists of sixteen articles, by the last of which the treaty is to be ratified within six weeks, and is signed by Count Diebitsch, Count Orloff, and Count Pahlen.—Moldavia and Wallachia, Adrianople, Silistria, the whole extent of the Balkan from Emine as far as Kazan, Bourgas, Sizopolis, and all the places which the Russian troops have occupied in Roumelia, are to be restored to the Porte. The Pruth, from Moldavia to the Danube, and the Danube to the mouth of St.

George's, will continue to form the frontier line between the two empires.

The Danube is to be navigable to the merchant vessels of the powers, but Russian ships of war are not to go beyond the junction of the Danube with the Pruth. The line following the limit of the Gouriel, from the Black sea as far as Imentia, and from thence to the junction of the Akhaltzik, Kars and Georgia, including the town of Akhaltzik, is to be the frontier of Georgia, Mingrelia, and other provinces of the Caucasus united to Russia. All the countries to the south and west of this line, together with Kars, Erzeroum, and other towns and pachalicks which have been occupied by the Russian troops, are to be under the dominion of the Porte. The privileges of the principalities of Moldavia and Wallachia are secured to them. The six districts detached from Servia are to be restored, and the clauses of the treaty of Akermann referring to Servia are to be immediately observed by the Porte. The 7th article claims great privileges and immunities for Russian vessels trading to Turkey, and for Russian subjects residing in the dominions of the Porte. The latter are to be under the exclusive jurisdiction and police of the Ministers and Consuls of Russia; and the Black sea, the Dardanelles, and the Canal of Constantinople are to be open to all merchant vessels of Powers at peace with the Sublime Porte. An infraction of any of the stipulations in this article, without prompt redress, is to be taken as a declaration of hostility. By the 8th article the Porte is to pay, in the course of 18 months, 1,500,000 ducats of Holland, (about £750,000) as an indemnity to Russian merchants for losses in consequence of the measures relating to the navigation of the Bosphorus, at different periods since 1806. The next article refers to the indemnity for the expenses of the war, the amount of which is fixed in a separate treaty. The Porte is to declare its entire adhesion to the treaty of July 6th, 1827, concluded at London. Until the complete evacuation of the territories occupied by the Russian troops, the time for which is fixed by a separate treaty, the administration of affairs there is to be under the influence of Russia. The thirteenth article provides, that there shall be an entire indemnity for the subjects of both powers for every thing they may have done or said during the war.

All prisoners of war, on both sides, are to be set free, without ransom or condition, and furnished with means to reach the frontiers. All previous treaties and conventions, with the exception of those annulled by the present treaties, are to be carried into effect. By a separate treaty the indemnity for the expenses of the war to be paid by the Porte is fixed at ten millions of ducats, (about five millions sterling) to be paid in ten equal annual instalments. The indemnity to the merchants is to be paid in four instalments, on the first of which Adrianople is to be evacuated; on the second the Russians retreat beyond the Balkan; on the third beyond the Danube; and on the payment of the whole sum of 11,500,000 ducats, they leave the Turkish territory altogether.

Cotton.—It will be seen that cotton is still on the rise in Liverpool.—Sea islands having experienced a further improvement of ½d per lb. and all other descriptions selling at the highest price of the previous week.

A dreadful fire occurred at Manchester on the 12th October, by which the warehouses of the Manchester, Liverpool, and Halifax companies were destroyed.

The Princess of Orange had been robbed at Brussels of all her jewels, amongst which it is said, an amethyst necklace of the value of 80,000 pounds sterling, given to her by her late brother the Emperor Alexander, was the most valuable. The loss is stated to be about 180,000 pounds.

London Markets.

From the London New Price Current of Oct. 13.

Tobacco—The sales reported this week are about 130 hhds. ordinary old for export at 2¾d, and a parcel of good black Kentucky about 3½d.

Cotton—The purchases of Cotton for the week ending last night, consists of 920 Surat 3 1-8d a 4¾d; 30 Bengal 3½d; 200 New Orleans 5¾ a 5 7-8d; 100 Egyptian 6d; 3200 Surat, public sale, 3 a 4½d. The sale of 9000 bags on Friday has now been all placed.

Liverpool, *Saturday, October 17.*

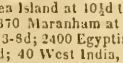
Our Cotton market has remained very steady during the whole of the week; the prices of all descriptions have fully maintained our last quotations, and at the public sale yesterday, those of Sea Island and Demerara improved ¼ to ½d per lb. upon the previous currency. Of 500 Sea Island Stained brought forward, 190 of the former sold at 11½d to 12d for middling to fair, 12¼ to 13¾ for good fair to good, 14 to 16½d for fine to choice marks, and 50 Stained at 5½d to 11½d. There were also sold 500 Demerara and Berbice at 6d to 8½d. The sales by private contract consist of 6310 Bowed at 5d to 6⅞d, chiefly at 5½d to 6d for middling to good fair, 1490 Orleans 5½d to 8d (10 at 8¾d) chiefly at 6d to 6¼d for good to fair; 3140 Alabama and Mobile at 5d to 6 1-8d; 220 Sea Island at 10½d to 20d; 1050 Pernambuco at 6¾ to 7½; 1370 Maranham at 5 7-8d to 6½d; 1210 Bahia, at 6d to 6 3-8d; 2400 Egyptian, at 6d to 7 3-8d; 50 Demerara, at 7d; 40 West India, at 5¼d to 6d; 30 Carthagena at 4½d; 30 Cuba, at 3 7-8d to 4 3-8d; 690 Surat at 3 1-8d to 3 3-8d; 10 Bengal, 4½d. Making a total, including those sold by auction, of 18,780 bags, of which 500 American, 600 Brazil, and 1400 Egyptian are taken for export. The arrivals are only 2517 bags.

There have been no sales made in Tobacco worthy of particular notice since our last: the market remains steady at our quotations.—Carolina Rice continues dull of sale.—The demand for all descriptions of Grain has been dull, and as holders have been pressing sales, a further reduction in prices has been submitted to: new wheat has declined 4d. to 6d. and old 3d. to 4d. per 70 lbs. Oats have given way 1d. to 2d. per 45 lbs.; Indian Corn 1s. per 480 lbs. and American Flour in bond 1s. per brl. There has been some demand for Clover seed; in consequence of which 50 casks and 100 brls. American, have been disposed of at 60s. per cwt. being an advance of 2s. to 3s. per cwt. on the previous nominal prices.

London, Oct. 15, 1829.

The averages of Grain published this day, exhibit a further decline in that of Wheat:—Weekly average. Wheat, 59s. 4d.; Barley, 34s. 8d; Rye, 31s. 10d.—Duty on Wheat, 24s. 8d.; Barley, 10s. 10.; Rye, 21s. 3d.

PEACHES, AND OTHER TREES, ON PLUM STOCKS.



WILLIAM PRINCE has now in his nurseries, Peach, Apricot, Nectarine and Almond trees of a number of the choicest kinds, inoculated on *Plum stocks*, which it is well known renders them more hardy, and better calculated to succeed in any climate. He has also 20,000 Plum trees, comprising nearly all the various kinds inoculated on the *celebrated plum stock*, which has been so highly recommended by different writers—those inoculated, it is well known, bear a decided advantage over those on Peach stocks *for* most localities. Also above 50,000 Pear trees, embracing the 295 choice kinds in his catalogue, and about 40 other *new kinds;* they are of thrifty growth, and fair size. Cherry trees of *large size* can be supplied, comprising a great variety of kinds. Peach trees of large size and very vigorous, and of selected kinds, at $25 per 100.

Apple trees of same description, $25 per 100.

Orders for any of these articles, or for the various other articles cultivated at the establishment, sent per mail or left with the subscriber, will meet attention. Any person making the request, will have the *priced* catalogues immediately sent him. The four Chinese Pœonies, viz: Whitleji, Humei, Fragrans and Moutan or tree Pœony, will be supplied at $10 for the four, and extra large plants at $12 for the same.

GIDEON B. SMITH, Agent,
Office of the Am. Farmer.

ALMANAC.

1829. November.	Sun. Rises. H. M.	Sun. Sets. H. M.	Length of days. H. M.	Moon Rises. H. M.
Saturday,...... 21	7 9	4 51	9 42	2 17
Sunday,........ 22	7 10	4 50	9 40	3 13
Monday,....... 23	7 11	4 49	9 38	4 9
Tuesday,...... 24	7 12	4 48	9 36	5 5
Wednesday,.. 25	7 13	4 47	9 34	6 2
Thursday,..... 26	7 13	4 47	9 34	sets
Friday,......... 27	7 14	4 46	9 32	6 12

Moon—New Moon, 26th, 7 h. 25 m. Mor.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There is very little variation in the prices of produce. Howard street flour has advanced a trifle. Grain remains pretty much the same as at our last. Corn and Rye sell readily at quotations. Beef on the hoof continues plenty. Wood is a little lower.

Tobacco.—Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12.00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4 00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week comprise 326 hogsheads Maryland, and 20 hogsheads Ohio.—Total 346 hhds.

Flour—best white wheat family, $6.25 a 6.75—super. Howard st. 5.44 a 5.50; city mills, 5.00 a 5.25; Susquehanna, ——. Corn Meal, bbl. 2.50 a 2.62½—Grain, best red wheat, 1.00 a 1.04; best white do. 1.10 a 1.12½; ordinary to good, .90 a. 95—Corn, old white, .43 a .45; yel. .43 a .45; new, .38—Rye, .46 a .47—Oats, .27 a .28—Beans, 1.10 a 1.15—Peas, .60 a .65—Clover seed, 3.75 a 4—Timothy, 2 a 2.50—Orchard Grass, 2 a 2.50—Herd's, .75 a 1.00—Lucerne .37½ a .50 lb.—Barley, .50 a .55—Flaxseed, .75—Cotton, Vir. .9½ a .10½ Lou.—.11 a .12—Alab. .9½ a .11—Missis. .10 a .12—N. Car. .9½ a .9½—Geo. .9 a .10—Whiskey, hhds. 1st p. .23½ a —; in bbls. .24 a 25—Wool, common, unwashed, lb. .15 a .16—washed, .18 a .20—crossed, .20 a .22—three-quarter, .28 a .30—full do. .30 a .35, accord'g to qual.—Hemp, Russia, ton, $220 a 225; Country, dew-rotted, 120 a 140—water-rotted, 170 a 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — a 5.50—Herrings, No. 1, bbl. 3.75 a 4.00; No. 2, 3.50 a 3.75—Mackerel, No. 1, —— a 6.00; No. 2, 5.25; No. 3, 4 00—Bacon, hams, Balt. cured, .9 a .9½; do. Eastern Shore, .12½—hog round, cured, .7 a .8—Feathers, .33 a .34—Plaster Paris, cargo price per ton, $4.00, ground, 1.25 bbl.—Prime Beef on the hoof, $3.50 a $4.50. Pine Wood, by the vessel load, 2.50 to 2.62½; by the single cord, 2.75—Oak Wood, by the vessel load, 3.50; by the single cord, 3.62½.

CONTENTS OF THIS NUMBER.

Report on Farms, at a late Cattle Show and Fair held in Massachusetts, with the award of the Premiums—Beaufort, N. C. Agricultural Society, Report to and proceedings at their meeting—Account of the Show and Fair of the Agricultural Society of Albemarle County, Virginia—On Wool Growing in America—Culture of Sugar in Georgia—Cultivation of the Vine—Report to the Stockholders of the Baltimore and Susquehanna Rail Road Company, concluded—Maternal Influence—Natural History of the Fox, with an engraving, from the third number of the American Turf Register and Sporting Magazine—Editorial; The Lafayette Institution at Baltimore, conducted by Mr. Le Page; Decision in the Virginia Convention—Latest Foreign News and Prices of American produce in the Liverpool and London Markets—Baltimore Prices Current—Advertisement—Almanac for the week.

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AGRICULTURE.

(From the Southern Agriculturist.)

On the Use and Manner of Choosing and Applying Salt Marsh Mud as a Manure; by the Hon. Wm. Johnson, *Judge of the U. S. Supreme Court.*

The following communication from Judge Johnson, will be found a very important one, and it will be read attentively by Cotton-planters, and all others who can precure the Salt Marsh Mud, or even that from fresh water, for Cotton, as well as for other crops.

The Judge's general observations on the mode of increasing the quantity of corn raised to the acre, are most judicious, and ought to be urged on every one who plants that, or other crops in our southern climate; for they apply to all. Unfortunately, our general system of management has so far lowered our ideas of our lands, and of the common crops we grow per acre, that, not knowing what is done elsewhere, we are satisfied with producing a little more than some immediate neighbour, and thus no one makes even an attempt as *yet*, at going for the highest prizes. But no doubt by degrees, some of our planters will begin to try for their 100 bushels of corn also, to the acre; for we think the facts stated by the Judge will be duly weighed, and take effect in some quiet corner of our land, when the advantages of raising as much corn on *three* acres, as is generally got from *twenty* or *thirty*, are well considered. [*Ed. So. Ag.*

Charleston, Sept. 5, 1829.

To the Editor of the Southern Agriculturist.

Sir,—I have the pleasure to acknowledge yours of yesterday, in which you intimate that you had understood "that while I was owner of a plantation on Wando river, I had tried an experiment on an extensive scale in using salt-water mud on my fields;" and that "a knowledge of its effects, and the general result of the experiment would be of great use to agriculturists living on salt-water," and requesting me to furnish the particulars for an article in the "*Southern Agriculturist.*"

I have, sir, too humble an opinion of my own pretensions or opportunities of acquiring experience, as an agriculturist, to venture upon an attempt to instruct others. Yet I am aware of the evil consequences that result daily from too much diffidence on this subject, since it probably results in the suppression of much useful knowledge, and certainly of many useful hints which those who possess leisure, enterprize and opportunities, might improve upon. Agriculture has been to me but little more than an amusing and interesting study; in practice a very unprofitable pursuit, for my professional and official avocations have put it out of my power to devote to it that close and continued observation, without which it is difficult to advance beyond the very A, B, C of the science.

With regard to the use of the mud of our salt marshes, I have reason to believe that I was among the first, if not the first who ever used it as a manure; and although I should not have intruded upon the public, the little knowledge I have acquired in the use of it, yet there is one consideration which is imperative upon me in authorising you to give this letter whatever publicity you may think it merits. It is this: I have now acquired great confidence in the use of this manure, and I would willingly save all others from the trials, delays and disappointments through which I had to pass before I had acquired that confidence.

I had studied the subject of manures, and went on at first applying to this the general rules upon the subject until experience brought me to a knowledge of the very different treatment which it requires.

It was long before I purchased the place at Wando, that I commenced my experiments on marsh mud. By a memorandum made at the time, I find it was in 1801. They have since been several times discontinued and renewed, but the conclusion to which they have led me, and under which I use it at present, are all that it can be of any importance to communicate.

I observe the following rules:

1. To obtain it free from sand, clay and roots, and of about the consistency of common mortar. If free from all extraneous substances, it is not very material how stiff it is, but when soft it is most easily acted upon by the weather, and sooner reduced to a productive state. When speaking of extraneous substances, I would except shells, for I believe there is no mud better than that which is dug out of a muscle-bed, or an old shell-bank.

2. In whatever way it is used, never to cover it with earth, for if buried but a little under the earth it remains a long time, if not forever, as hard and unproductive as a brick. It must be acted upon by the weather before it acquires or communicates fertility. And hence I committed a great blunder in my first attempts, by collecting it, or permitting it to remain in heaps. It must be distributed in bodies not exceeding the contents of a hand-barrow. On the other hand, if scattered about in very small bodies, it bakes in the sun, and becomes too hard and dry for the wind, sun, rain or frost, to act upon. The spade or hoe, also, commonly glazes one or more sides of the lump in cutting it and makes it as untractable as a piece of pottery. When dropped from a hand-barrow between the rows of an old corn or cotton field, in August or September, (instead of devoting the same time to clearing land, as is common,) the operation is a very neat one. The grass keeps it open, so that the sun and rain decompose it rapidly, and when a heavy rain falls, it washes off a portion of the surface, and the water being checked by this succession of obstruction, a black deposit is perceived all along between the beds. This is a genuine "*lætamen,*" to use the fine Latin word for manure. And if the mud be distributed in the same manner in a planted field, a portion of the fertilizing matter is carried to the root of the plant, in the water and produces an obvious effect on its growth and colour.

3. The mud is not in any mode to be applied to the root or stem of the plant before it has been exposed to the weather, and exposed until pulverized. Until then, I think it injurious, except in the very small quantities which it will be conveyed by the rain water. I will not pretend to give the *rationale* of this rule, but I can do better, by noting the fact, that it kills the contiguous grass wherever it is thrown. Should I attribute it to the salt, I know I shall encounter strong prejudices, yet I should be at a loss to find any other cause for it, small as is the quantity of salt contained in marsh-mud.

With the observance of these rules, there is no soil and no plant that will not be benefitted by the use of marsh mud. If, instead of continued clearing, and the itch for large planting, a system of manuring with it, should ever be steadily and judiciously pursued, it would produce a revolution in the agriculture of the low country. I say of the low country, for where the mud of the salt-marsh cannot be had, that of the fresh-water ponds and rivers may be resorted to, which, when free from extraneous matter, can want but little of being equal to the former, and in immediate effect must excel it. What is wanting in quality must be supplied in quantity.

I remember some years ago, in a discourse delivered at the request of the Literary and Philosophic Society, in pressing this subject upon their attention, I incurred a good deal of criticism by the assertion, that a single acre might be brought to produce one hundred bushels of corn. I had sufficient data at the time to have established the assertion, had I imagined it would be ridiculed. But at present the most incredulous cannot doubt. If newspapers are to be believed, a Mr. Fargo, near Rochester, in New York, has raised 143 bushels of corn to the acre. In New Jersey, in 1822, 132 bushels were gathered from an acre; the Mr. Pratts, of Eaton, N. Y. produced 517¾ bushels from three acres—equal to 172½ nearly, per acre. To give any thing like this production to land, we might afford in favourable situations to cover our fields an inch deep with marsh mud. Especially when we consider the peculiar advantages attending this manure.

Unlike most other manures, and especially the mud of fresh water rivers, it contains no grass-seed. The salt water has destroyed every seed that would vegetate out of salt water. Yet there is scarcely any other soil equally productive of grass after a few years, if we wish to cultivate it.—The late Mr. Robert Rowand, informed me of an instance in which a small piece of reclaimed marsh had produced a crop of crab-grass approaching to five tons to the acre, which is almost unexampled, I believe, except in Lucerne.

But the great advantage of the marsh mud is its durability. Most other manures are either absorbed, exhausted, or washed away in a short time, and must be replaced.—This appears to produce an actual change in the soil, giving to our light sandy lands, a colour and consistency, and a durability approaching to what our planters know by the epithet of mulatto-land.

I am speaking, recollect, of cultivating little, and manuring it well.

I have the pleasure to subscribe myself, sir, your very humble servant, William Johnson.

(From the Charleston Patriot.)

RICE IN THE NAVY.

According to some late resolutions of the Agricultural Society of South Carolina, relating to the more general use of rice in the navy of the United States, an interesting correspondence has taken place between the corresponding secretary of the society, Wm. Washington, Esq. on the part of the institution, and the secretary of the navy. The letter of Mr. Washington is very satisfactory in showing the nutritious quality and wholesomeness of rice. The facility with which it is prepared, and the public economy likely to result from its general introduction into the vessels of the United States, are among the statements of Mr. Washington, sustained by respectable authority. We subjoin the answer of the secretary of the navy, and the communication from the navy commissioners' office, relating to the subject:

Navy Department, October 21, 1829.

Sir:—I have had the honour to receive your interesting communication, dated the 29th ult. upon the subject of introducing rice as a part of the food to be used by the navy of the United States, and enclosing an extract from the minutes of the Agricultural society of South Carolina.

Respectful attention has been given to your communication, and I enclose a copy of a letter from the commissioners of the navy, containing their views in relation to a more extensive use of the article of rice.

I beg you to assure the Agricultural society of South Carolina, that experiments shall be made, and a fair and full investigation be had, to test the weight of the objections urged by the commissioners. I am, very respectfully, &c. John Branch.

Wm. Washington. esq. cor'ng sec'ry Ag. soc'y S. C.

Navy Commissioners' Office, Oct. 16th, 1829.

Sir—Upon the subject of the letter of W. Washington, esq. and the resolutions of the agricultural society of South Carolina, which you were pleased to refer to this board, the commissioners beg leave to observe, that, by law, rice is at this time a part of the navy ration—two days in the week, (Wednesday and Friday,) half a pint is issued to each person on board of ship—it is also used as hospital stores.

The commissioners concur in opinion with Mr. Washington as to rice being a nutritious and wholesome food—and they would be glad to see it more extensively used than it is. There is, however, among sailors generally, a strong prejudice or dislike to it. The belief among them is almost universal, that the use of it impairs the sight, and it is a fact that of the quantity issued in our service, seldom more than one half is consumed. This prejudice or dislike, is so deeply rooted, that any attempt to introduce the extensive use of rice would, we apprehend, render the service unpopular.

In reference to the service itself, an objection of some weight exists, in the quantity of water which would be consumed in boiling the rice—in a season of active operations, this objection would be more serious.

An attempt was once made by one of our commanders to introduce the use of corn, hominy, and meal on board of his ship—but it produced such serious discontent among the crew, that it has never since been revived.

I have the honour to be, with great respect, sir, your obedient servant, John Rogers.

Hon. John Branch, Secretary of the Navy.

The following communication from R. Patten, Esq. a highly respectable farmer in this neighborhood, presents a case truly discouraging, but such as, we hope, may lead to an inquiry into the causes of the disorder, and discover a cure. Mr. Patten stated verbally to us, that the difficulty could not proceed, he thought, from the food or water given his cattle, as no unusual feed was attempted, and the water was from a brook, at which they and other cattle, not affected, were always watered.

Ed. Newburyport Herald.

DISEASE IN CATTLE.

Mr. Allen,—A very singular disorder has appeared among my stock of cattle, during the past summer, some account of which, by your leave, may be the means of ascertaining its nature, and leading to a cure in cases like circumstanced. In June last, two cows, two oxen, and two horses died, and last week, one horse and one ox, in all, eight creatures. The first that died was, without any previous symptoms of disorder, found dead in her stall. The others lived between twelve and eighteen hours from the attack, symptoms, heaviness about the eyes and loss of appetite without much apparent pain until shortly before death, when the agony became extreme. On opening the bodies, the intestines were found in a healthy state, the vital parts not disordered, and no appearance of disease, save in the spleen or melt, which was enlarged to twice its usual size, and looked mortified. All the ordinary means for curing cattle were used in these cases. A number of cattle belonging to different persons in this neighbourhood have died, apparently from the same cause. Yours, &c. Robert Patten.

Amesbury, Nov 28, 1829.

(From the Charleston Courier.)

COTTON SEED HULLING MACHINE.

Mr. Editor,—In passing through Petersburg, (Va.) I was induced, from a personal acquaintance with the proprietors, and motives of curiosity, to visit and inspect the lately invented Cotton Seed Hulling Machine; and cannot sufficiently express my admiration of its performance, and of the simplicity of its construction. Being put into operation, and timed, it hulled half a bushel of kernel in 3¾ minutes, equal to three bushels of the rough cotton seed in 7½ minutes producing one bushel of kernel. The power applied, was a three horse power; but from the ease with which it worked, I am well convinced that a two horse power would have answered. The same power that is applied to the Cotton Gin, will answer for the Hulling Machine. One bushel of kernel will yield two gallons oil and 35 lbs. of the oil cake; or 100 lbs. of the rough cotton seed will yield 55 lbs. kernel, which will yield two gallons of oil, and 35 lbs. of oil cake. The oil can be expressed at 5 cts. the gallon, allowing the oil cake to be retained—or 15 cts. if returned, it being highly nutritious for cattle. At a moderate calculation of price, and at the present low price of cotton, it will make a difference of one third in favour of the planter. By experiment, the oil is found to answer for painting, machinery, and for lamps; and but little doubt is entertained of its equalling the best Sperm, when properly refined.

When we consider the great consumption of oils, for various purposes throughout the United States, and the probability of the Cotton seed oil superseding all others in use, from its cheapness and aptitude for almost every purpose, and the likelihood of its becoming an important article of export—its capability of producing being fully equal to the Flaxseed, independent of the advantages of the oil cake, we cannot but believe it a discovery deeply interesting to the Southern states, and promising great relief to our planters in their present embarrassments.

I have left at your office a specimen of the hulled seed, or kernels, and also of the husk, to shew how effectually the operation is performed, and also a piece of the oil cake; and for further particulars, would refer those interested, to the advertisement of the proprietors, which have the goodness to insert, and oblige. A. Subscriber.

October 22, 1829.

—

We, the subscribers, proprietors of the above named Machine for hulling cotton seed, invented by Francis Follet, and for which he has obtained a patent, now offer for sale rights for the use of said Machine for the United States, or for the use of a single Machine. A Machine of a size suitable to be applied to the power of from two to three horses will hull and clean at one and the same operation, from twenty to twenty-five bushels of seed per hour, which will yield one third its measures, or fifty-five per cent. of its weight in kernel from seed of tolerably good quality. One bushel of kernel will yield at least two gallons of oil, which is equal to the flax seed, and we believe one or two quarts more, if well expressed, and will leave about thirty-five pounds of oil cake, a valuable and nutritious food for fattening hogs and cattle. A Machine of the size to do the above work will cost about $150 exclusive of the patent right for using it. And those of a smaller or a larger size in proportion. We have a Machine now in full operation which will perform as above stated, open to the view of those who wish to examine it The oil is good for painting, not inferior to the linseed oil. It is also a good gas light oil, and we believe it may be made a good oil for lamps, for cleaning wool, for machinery, and for many other purposes. But of this we cannot speak with certainty.

A bale of cotton, of 350 pounds, will yield 30 bushels of seed. The Machine is suited to hull either green or black seed. The machinery that drives the Cotton Gin will do to drive this Machine, and the presses for pressing cotton seed, we believe, may with a little additional fixture and small expense, be made to anwer the purpose of expressing the oil from the kernel. From the above information, which may be relied on, those who wish to purchase rights, may make their own calculations as to its value, &c. We conceive the discovery to be of great national benefit, especially to the cotton growing states, and that too from an article heretofore of little or no value.

Those disposed to purchase patent rights for one or more states, shall have them at a difference in price from smaller purchasers, worthy their attention. Our purpose is to sell at a moderate price, particularly to those who are amongst the first that purchase, feeling confident that in proportion to the use of this Machine its value will be enhanced.

We have annexed at foot an extract from the patent laws, and we refer to the laws themselves to know in what an infringement of a patent right consists, that the consequences may be avoided.

Applications for patent rights, in person or by letter, postage paid, will be duly attended to.

Francis Follett,
Jabez Smith.

Extract from the Patent Laws.

"Any person, without the consent of the patentee, his or her executors, administrators or assigns, first obtained in writing, shall make, devise, use or sell the thing whereof the exclusive right is secured to the said patentee by such patent, such person so offending shall forfeit and pay to the said patentee, his executors, administrators or assigns, a sum equal to three times the actual damage sustained by such patentees, his executors, administrators or assigns, from, or by reason of such offence, which sum shall and may be received by action on the case founded on this and the above mentioned act, in the Circuit Court of the United States, having jurisdiction thereof.

Petersburg, (Va.) October, 1829.

COTTON CROPS.

By a statement published in this morning's shipping list, the total amount of the Cotton crops for the past year, is estimated at 870,415 bales; being an increase, compared with last year, of 149,822 bales:

Total crop of	1824–5	- - -	569,259	bales.
Do. do.	1825-6	- - -	720,027	do.
Do. do.	1826-7	- - -	957,281	do.
Do. do.	1827-8	- - -	720,593	do.
Do. do.	1828-9	- - -	870,415	do.

Consumption.—To estimate the quantity manufactured in the United States, we take the

Total crop for the year past -		870,415 bales.
Deduct therefrom—The export to Foreign Ports	749,000	
Stocks on hand in the Southern Ports - - - - - -	16,562	
		765,562
And assume that the quantity in the Northern Ports was the same as last year, it results that the consumption was - - - - - - - -		104 853
Estimated consumption for	1827-8	120,593
Do. do.	1826-7	103,483

Note.—The quantity on hand in the Northern ports at the close of last year is believed to have been much greater than the present. It is probable, therefore, that the actual manufacture has varied but little.

The demand for Cotton in this market continues good, and the sales of the week are estimated at over 3,000 bales, chiefly Uplands, at 8½ to 10¾ cents. There has been a fair demand both for home manufacture as well as export; and our stock is low—very little of the old crop in market. [*New York paper.*

Encouragement to Cotton Growers.

We have pleasure in stating, that the sample of *new cotton* (45 bales) of the crops of Messrs. *Benbury* and *Skinner*, from the neighborhood of Edenton, (N. C.) of which notice was taken in Friday's Beacon, was purchased on Saturday last, by merchants of this place, at 9½ cents per pound—realizing the best expectations of the owners Why there should have been any doubt, that this article, if of good quality, would command a ready and fair price here, is matter of surprise to us, seeing that every bale, hitherto brought into this market, has obtained as high a price, as the same article would have commanded in any other part of the state. [*Norfolk Bea*

(From the Alabama Journal.)

CULTIVATION OF SUGAR CANE.

General Wade Hampton, whilst in Montgomery, which he left a few days since, wrote a letter to his son, near Columbia, South Carolina, from which we are permitted to make the following extract, to which we would invite the particular attention of the farmers of this state; the more especially as his judgment in relation to the subject-matter of the letter must be allowed to be worth as much as that of any other man whatever, having been for a number of years very extensively engaged in the culture of sugar cane.

"Nothing has, for a long time, astonished me so much as the appearance of the sugar cane all through Georgia and this state, as far as I have seen. It is more forward and sweet than I ever knew it to be at the same season in Louisiana. It has determined me 'to go the whole' on it in Carolina, and to give up cotton for ever, after the next crop. By the last of January you may expect an arrival in Charleston with a full cargo of Otaheite tops, with the exception of fifty hhds. of sugar and molasses for ballast. Another, and another will follow, to complete the planting of fifty acres as thick as if for rolling. The year after you ought to follow suite. All doubts, from my mind, of its complete success, are removed."

Extract to the Editor, dated,

Port Gibson, Mississippi, Oct. 23, 1829.

"We have had a remarkably cool and pleasant summer for the most part. The summer months were very wet, but for the last six or seven weeks we have been almost entirely without rain. The cotton crops promise to be quite abundant, particularly on the river, which you are aware did not overflow this year. The season for picking has been remarkably good, and the quality of the cotton will be very fine.

"In this section of country it has been quite healthy, but on the river and at Natchez, it has been somewhat otherwise.

"We had a slight frost on the night of the 20th, but not sufficient to do any injury to the cotton plant."

(From the New England Farmer.)

ON POTATOES.

Mr. Fessenden—Your correspondent, Mr. P. Ware, in reply to the queries of "No Theorist," has detailed some experiments on potatoes. One fact in every art or science is worth many conjectures, however plausible; and the public should be grateful to any intelligent farmer, who will execute with exactness any valuable experiment and communicate the result for the benefit of others. I have thought, while the subject is particularly before their attention, that the agricultural public might be gratified with the result of some experiments on this subject, conducted with apparently great exactness by a gentleman, who chose to withhold his name from the public, and printed in the 3d volume of the Memoirs of the Mass. Agr. Society, page 322. I have therefore transcribed and now forward them to you, to use as you may deem best.

Oct. 26, 1829. Yours respectfully, H C.

"So wide a difference of opinion exists among both scientific and merely practical farmers, as to the quantity of seed necessary to produce the best crop of potatoes, I had determined to make an experiment on this subject. For this purpose I selected a piece of sandy loam, incumbent on a substratum of sand, the whole ground as near alike as to quality as possible; and now enclose you the result of forty experiments. These experiments were made under my immediate inspection, therefore I can answer for their correctness."

Dated *Dover, N. H. April* 8, 1815.

I. Result of fifteen experiments made at Dover, New Hampshire, A. D 1815, of seeding potatoes, consisting of 20 hills—the rows 3 feet apart; hills 2 feet, *without any manure*, on sandy loam that had been two years planted.

Number of Experiments.	Quantity of seed. ozs.	Description of the seed as put into the ground.	Wt. of seed in 20 hills. lb.	oz.	Total produce in pounds.
1	12	Two whole potatoes,	15		80
2	6	One do.	7	8	49
3	12	Two do. cut in halves latitudinally,	15		61
4	6	One do. do. do.	7	8	55
5	2	The eyes of two potatoes which weighed 12 ozs.	3	4	28
6	1	The eyes of one do. do.	1	10	20
7	6	One potato cut in quarters longitudinally.	7	8	56
8	3	Half do. do. do.	3	12	35
9	3	Half do. cut in halves do.	3	12	37
10	1½	One quarter of a potato,	1	14	32
11	4	Four potatoes, whole, weight 1 oz each produce small size,	5		39
12	2	Two do. do. do. rather small,	2	8	35
13	1	One do. do. do. good size,	1	4	31
14	4	The sprout end of two do. ½ of each,	5		42
15	6	One do. wt. 6 ozs. eyes cut out,	7	8	33
			88	0	632
		Gain by manuring,			143
					775

II. The following fifteen experiments are exactly the same as the former, with the addition only of a shovel full of good barn manure to each hill.

Number of Experiments.	Quantity of seed. ozs.	Description of the seed as put into the ground.	Wt. of seed in 20 hills. lb.	oz	Total produce in pounds.
1	12	Two whole potatoes,	15		76
2	6	One do.	7	8	46
3	12	Two do. cut in halves latitudinally,	15		73
4	6	One do. do. do.	7	8	64
5	2	The eyes of two potatoes, which weighed 12 ozs.	3	4	41
6	1	The eyes of one do.	1	10	46
7	6	One potato cut in quarters longitudinally,	7	8	65
8	3	Half do. do. do.	3	12	49
9	3	Half do. cut in halves do.	3	12	54
10	1½	One quarter of a potato,	1	14	38
11	4	Four potatoes whole, weight 1 oz. each, the produce small size,	5		52
12	2	Two do. do. rather small,	2	8	44
13	1	One do. do. good size,	1	4	37
14	4	The sprout end of 2 do. ½ of each,	5		46
15	6	One potato the eyes cut out,	7	8	42
			88	0	775

III. Result of ten experiments of seeding potatoes, 20 hills each, manured with a small handful of Rock weed.*

Number of Experiments.	Quantity of seed. ozs.	Description of the seed as put into the ground.	Wt. of seed in 20 hills. lb.	oz.	Total produce in pounds.
1	12	Two whole potatoes,	15		73
2	6	One do.	7	8	61
3	6	One do. quartered longitudinally,	7	8	67
4	3	One half do divided do.	3	12	52
5	1½	One quarter of the potato,	1	14	26
6	8	Four whole do. 2 ozs. each,	10		69
7	6	Three do. do. do.	7	8	44
8	4	Two do. do. do.	5		53
9	2	One do. do. do.	2	8	42
10	2	One do. cut in halves,	2	8	47
			63	25	34

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* Fucus of Lin. much used as a manure for raising corn on sandy plains in this vicinity. (Dover, N. H.)

The foregoing experiments prove, what all experienced farmers were convinced of, that poor land requires more seed in all kinds of crops, than that under a high state of cultivation

N. B. A bushel of potatoes weighs 56 to 58 pounds. The potato used for seed in the above described experiments was the large blue.

HORTICULTURE.

(From Prince's Treatise on the Vine.)

AMERICAN GRAPES.

The varieties of vines which properly come under this head may be divided into several classes, arising from the peculiar circumstances of their origin, viz.

Vines of original native species.
Varieties of original native species.
Varieties obtained by admixture of native species.
Varieties obtained from seeds of exotic grapes.
Varieties obtained by admixture of foreign and native varieties.

Although some of these classes are already numerous, others are yet very limited, and from the short period of time that has elapsed since the public attention and that of intelligent connoisseurs has been particularly drawn to the subject in such a manner as to elucidate the various points, and to obtain precise information, it is yet impossible to form a definite arrangement of all our varieties. The perfection of this desirable object must therefore remain for future labours; but it is to be hoped an end so desirable will not be lost sight of by the amateurs of the vine throughout our country, and that each will, by developing the various points which fall within his notice, contribute his mite towards a perfect arrangement of the various classes, a precise nomenclature, and a knowledge of the peculiar qualities of the respective kinds.

ISABELLA.—Pr Cat. No. 355.

Gibbs' grape.

Vitis *labrusca, v. Isabella.*

This grape is said to be a native of South Carolina, and was introduced to this state by Mrs. Isabella Gibbs, the lady of George Gibbs, Esq. of St. Augustine, who then resided at Brooklyn, Long Island, and in honour of that lady has been called Isabella Grape. It is a dark purple fruit, of a large size, oval form, and juicy, and equals some of the secondary European grapes; and for vigour of growth, and an abundant yield, exceeds any other yet cultivated in this country, and requires no protection during the winter season. General Joseph Swift informed me, that a single vine in his garden produced above eight bushels during several successive seasons. In some instances vines have been stated to have produced a still greater quantity, and large vines of this kind, producing astonishing crops, are now to be met with in various parts of our country. There is no grape which will yield a greater quantity on a given space, or that can be made more lucrative in cultivation for market than this kind.

It also promises to take an important stand in this country for the purpose of making wine, as it possesses the requisites to insure success in making wine of a fair quality, or for making brandy equal to that of France. I have made wine from it of excellent quality, and which has met the approbation of some of the most accurate judges in our country. Indeed, this grape, of which but a single vine existed in any garden in 1816, and which I, at that time, met with in the possession of the gentleman before mentioned, and deemed worthy of notice and a name, has now become disseminated to the remotest parts of the Union, and has been sent to a number of the countries of Europe, and to Madeira, &c.; and although it has never been offered to the public as on an equality with the highly cultivated and delicious table grapes of France, still it offers to any one who chooses to plant it, a plentiful crop of pleasant fruit, without requiring from him the least care, or needing in winter the least protection, however cold may be its situation. I have also ascertained that the bunches may be dried, as raisins, with the greatest facility, and that they may be preserved in dry sand, sawdust, or any other similar substance, for many months, in the most perfect state.

In regard to pruning, which to a certain degree is advantageous with all vines, it has been remarked in relation to this, that if the vines are much trimmed at the summer pruning, the fruit is very apt to rot and fall of.

A peculiarity exists with regard to several of our native varieties, which is particularly exemplified in the Isabella; it is that of being twice-bearing, or of producing a second crop of fruit on the shoots of the same year, which is frequently the case with this vine; but the grapes seldom attain to maturity, unless in a season when the autumnal frosts are long protracted.

WHITE SCUPPERNONG.—Pr. Cat. No. 398.

Scuppernong. *Roanoke.*
American muscadine. *Hickman grape.*

Vitis *rotundifolia.*—Pursh.

The most perfect account of this grape that I recollect to have seen, is from the pen of James G. Hall, Esq. of Currituck, North Carolina, and published in Vol. IX. No. 18, of the American Farmer; and as this grape is more particularly cultivated in that region of country, I give some remarks, extracted from his communication, in preference to my own.—This grape (he states) is a native of the north-eastern part of North Carolina, and grows spontaneously on Roanoke island and its vicinity, and formerly was called the Roanoke Grape; but, as its excellence as a wine grape was first tested at Scuppernong, the grape has obtained that name abroad. The particular excellence of it is the richness of the grape, and the longevity and hardiness of the vine. The vines in North Carolina are never pruned, and receive little attention otherwise. If they were pruned, and properly attended to he considers that a far greater abundance of fruit would be produced. The grape is round, white, very sweet, and of a good size; the latter circumstance depending much on the vigour of the vine. They are pleasant for the table, and contain a large quantity of saccharine matter, so happily united with the acids of the fruit, as to render them finely flavoured for the palate and highly prized for wine. It is the opinion of many intelligent persons, that the Scuppernong, or Roanoke wine, has a richness and a peculiarly fine flavour unknown in the foreign wines which reach this country.

The shoots of this vine are very peculiar on account of the grayish appearance of the bark, and for their delicacy and smallness; but they are produced in such profusion, and are so thickly covered with foliage, that where the vine is left without pruning, the fruit is almost totally obscured from the sun. The leaves are smooth, light green, and very shining, not lobed but regularly indented; they are small compared with those of most other vines, seldom exceeding two and a half to three inches in the greatest diameter, and in fact it may be said that the whole aspect of the plant is of a peculiar character, bearing no resemblance to any other species. The blossoms expand in June, and later than those of any other vine I am acquainted with, the berries, which ripened with me the past season for the first time, were as round as a bullet, of a light green hue even when at full maturity, and of the size of the largest chasselas; the skin is very tough and rather thick; the seeds green; the juice is abundant, very sweet and pleasant, and of peculiar flavour, and when ripe entirely free from any pulp. It is a pleasant fruit for the table, and judging from the skin, I should suppose it could be kept a long time in perfection for eating. The clusters are never large, but very numerous; the berries are very loosely and separately set, which greatly aids their perfect maturity. The fruit did not fully ripen with me the past season until the 15th of October, but the vines had been left without pruning, and the clusters were hidden from the sun. I think by judicious pruning, and by training the branches separately, so that the fruit would be more exposed, it would ripen much sooner.

This vine may be readily distinguished from the black variety by the colour of the tendrils, which are green. All its advantages considered, it promises, at no distant day, to form the basis of innumerable vineyards in different sections of the country. I have not, however, hitherto considered it as suitable for this latitude; but I am now fully convinced that it may be cultivated here also with success, though I scarcely think it would ripen its fruit sufficiently early much further to the north.

It is a dioecous species, and in order to obtain crops, it is necessary to have vines of both sexes; from inattention to pursuing this course, many persons have failed in obtaining crops, and have therefore asserted that their vines were barren without taking sufficient pains to examine into the cause.

Some persons have claimed both this and the Isabella as foreign varieties, hereafter perhaps we may hear of foreigners claiming our lakes and our mountains, which they might do with quite as much justice.

The following is an abstract of the report of expenditures and receipts of the London Horticultural Society, at a recent *fete* of that institution.

The number of fellows of the Society to whom tickets were sold, was 331, at one guinea each; tickets sold to non-members, at one guinea, 3,365; do. at one guinea, and a half, 383; do. at two guineas, 309. The total number of tickets sold, was 4,438, producing £5,185 8s. 6d. Of the tickets sold, only 3,645 were presented at the gardens. The sum due to Mr. Gunter, who provided the repast, was stated to be £3,106 12s.; other expenses, estimated at £1,594 19s. 4d.; leaving an estimated balance in favor of the Society, of £483 17s. 6d.

RURAL ECONOMY.

FORWOOD'S GRIST MILL.

Mr. W. W. Forwood, *Chester Town, Oct.* 30, 1829.

Sir,—I take pleasure in informing you that I have made a full and satisfactory trial of the grist mill, which you erected for me last spring, and that in every respect it fully answers my expectations, and the descriptions you gave of it. Among many other trials I will mention to you one, (which is a very common one) and a fair and *moderate* experiment of its power and efficiency. I passed through the mill *one* bushel of corn in less than six minutes, from which I received half a bushel of meal, and one *full* bushel of *chopped corn. This is its usual work.*

I am fully satisfied that your mills will assist the farmers very materially in a system of economy already commenced, and that *at least* one third will be saved; for the chopped stuff will surely go as far as the like bulk of crude corn.

My mill is attached to the horse power of a *wheat-threshing machine*, erected for me by *Mr. Kitchin*, (which I think decidedly preferable to any I have ever seen) and my calculation is that I now get all my meal clear, as the toll, hauling, &c. is saved, and the remainder is as valuable as the corn would originally have been.

In short, I have no hesitation in saying that I would not now be deprived of the advantages of your grist mill for three times the sum I paid you for it. I am, sir, your ob't. servant,

William Barroll.

Mr. Forwood, *Chester Town, Oct.* 30, 1829.

Sir,—I have seen the letter from my father, William Barroll, Esq. to you, in relation to your grist mills, and I have the satisfaction to state, that my mill erected by you at the same time, and attached to Mr. Kitchin's horse power is fully equal in every respect to the description given by him, and that I have witnessed the work of my father's mill, and find no difference between that and my own. The simplicity of their construction is such as to be susceptible of repair by any common mechanic, and I consider their value on a farm inestimable.

Yours with respect, Wm. H. Barroll.

[The mill alluded to in the above, we are informed, may be had of the agents of the patentee, Messrs. Richardson and Cragg, millwrights and machine makers, Baltimore, of whom any information may be obtained through the medium of the mail—applicants paying postage. We understand the cost of a mill alone, including the right, will be $100. If the horse power machinery is required, an additional charge will be made in proportion to the number of horses.]

INTERNAL IMPROVEMENT.

OPENING OF THE CHESAPEAKE AND DELAWARE CANAL.

This work, one of the most important to the city of Philadelphia and indeed to the United States, having been completed and ready for navigation, it was determined to celebrate the event with appropriate ceremonies. A letter was accordingly addressed to the President of the United States, requesting him to fix a day on which it would be convenient for him to attend and join in the festivities of the occasion. Official engagements, however, having prevented his acceptance of the invitation, on Saturday last, the 17th inst. was selected. The Governors of the States of Pennsylvania, Maryland, and Delaware, with others of the principal officers, were also invited, and a number of gentlemen from those states, as well as from the city of Philadelphia.

At 7 o'clock, the President, several of the Directors, and the Secretary of the Company, left Arch st. wharf in the new and splendid steam boat William Penn.—They were accompanied by upwards of two hundred persons, among whom were Mr. Livingston, and Mr. Johnson, of the senate; Mr. Hemphill, Mr. Miller, Mr. Sutherland, of the House of Representatives, Judge Hopkinson, Mr. Sergeant, the Mayor and Recorder of the city, Judge Coxe, Count Eugene Ney, Mr. DeWallenstein, of the Russian Legation, Admiral Sir Isaac Coffin, Col. Miller of the marine corps, Mr. W. Beach Lawrence of New-York, and a number of other distinguished citizens and strangers. The company of Washington Greys, with an excellent band of music, were also on board, and by their soldier-like and gentlemanly conduct added greatly to the interest of the ceremonies.—At Chester the boat stopped to receive Commodore Porter, Mr. Leiper, Mr. Miner, Judge Anderson, and a number of gentlemen of the neighborhood; and at New Castle the party were joined by Mr. Johns, the representative in Congress, Mr. Rogers, the Attorney General, and many other gentlemen of Delaware.

About half after ten the William Penn reached Delaware city, the entrance of the Canal, where two other steam-boats full of passengers had already arrived. After a salute from the artillery on the pier, the company entered the barges on the Canal, which were waiting, and proceeded along it to the Lock at St. George's, where the United States schooner Engineer was lying, decorated with flags, and from which a national salute was fired. At the Summit bridge the barges passed the brig Sciot, the banks being lined with crowds of persons from the surrounding country. About two o'clock the barges reached the western Locks, and passed into the waters of the Chesapeake amid the huzzas of the crowd and the noise of artillery. At this place many distinguished gentlemen of Maryland were collected together, and some time was spent in examining the works, which appeared to give very general satisfaction. Before leaving this place to return, Mr. Robert M. Lewis, chairman of the committee of works, announced to the President the completion of the Canal in the following address.

Mr. President:—

We are assembled this day to witness the consummation of our long and anxious labors. The great work in which we have been engaged is so far completed as to open a navigable communication between the waters of the Delaware and the Chesapeake. To you, sir, and to my colleagues of the Board of Directors, it is unnecessary to recount the progress of this vast undertaking; its history is familiar to you all. But to my hearers generally a brief sketch of it may not be uninteresting. According to the original plan, the canal would have been less capacious than it is now made; but, after mature reflection, it was deemed advisable to fix its dimensions at sixty feet on the water line, and ten feet in depth; with locks of 100 feet (in the chamber,) in length, by 22 feet in width. By this increased capacity a passage will be opened between the Delaware and Chesapeake bays for the largest vessels that usually navigate them, as well as for sea vessels of the smaller class.

The canal, from its eastern termination at the tide lock, opposite Fort Delaware, pursues a direction about southwest, through a marsh, or peat bog, for upwards of three miles, until it reaches the village of St. Georges; where a lock, of eight feet lift, opens a communication with the upper level, continuing nearly the same direction along St. Georges creek, until within a mile of the summit bridge, where the deep cutting commences; thence passing through the ridge that divides the waters of the Chesapeake and Delaware, and following the valley of Broad creek to the western lift lock; where, by a fall of six feet, it communicates through the tide lock with Back creek, a branch of Elk river. The whole length being 13⅝ miles. The work was commenced on the 15th of April, 1824; and the first excavation made by my worthy predecessor, in the station of chairman of the committee of works—the lamented Silas E. Wier; who began with us in this enterprise with his accustomed ardor, and faithfully performed the duties of that office, as he did those of every other in which he was engaged, until the hand of death terminated his career of usefulness.

Your passage along the canal has afforded a general view of it; but *that* can give you no adequate idea of the difficulties which have been encountered in its accomplishment. In the marshes, on the lower level, you merely saw banks of about fifteen feet in height; but you are perhaps yet to learn, that a considerable proportion of these apparently small embankments are from twenty to sixty feet, and probably some parts 100 feet, below the surface of the marsh; having sunk these depths before they found a solid foundation on which to rest. And some estimate may be made of the earth that was swallowed up, when you are informed that it required the continued labour of about 200 men for nearly three years, and involved an expenditure of several hundred thousand dollars, to complete this part of the work. But it is done. Difficulties of another kind were encountered in the deep cutting, where the excavation for about four miles ranges from fifteen to seventy-six feet through various strata of alluvial formation. Some of them composed of indurated clay, and others of quick-sand, not only retarded the work by the difficulty of their removal, but increased its cost by causing immense mases of the sides of the canal to fall in.

To prevent a recurrence of these disasters, the banks have been supported by some thousands of deeply driven piles, and by a stone wall of about thirteen feet in height, from two to five feet in thickness, and extending upwards of three and a half miles in length, on each side.—These measures, although they have added much to the security of the work, have also greatly added to the original estimate of its cost, as they were not contemplated.

We have laboured under the disadvantages of a long series of unusually wet weather, which has retarded our progress; and some of our dismissed contractors have brought the strong arm of the law to bear so heavily on the work, as for a time to paralyze a part, and delay the whole.

These are but the outlines of some of the most prominent obstacles that have been met. *On the work*, difficulties of another character, and not less alarming, have also been encountered; and on reviewing them, it is not a matter of surprise that this canal should have cost upwards of two millions of dollars, but rather that it has been accomplished at all.

Its completion, however, is no longer doubtful; and the board of directors, fully believing in its permanency, think the time is not distant, when its stockholders will be amply repaid for their enterprise and confidence.

It is true, disasters and difficulties have passed like dark and lowering clouds across our path, and *made it gloomy;* but never, for a moment, *made us despond*. Having commenced the task, and pledged ourselves to the performance of its duties, we had but one honourable course to pursue, *and that was onward.*

Although we were assailed by the cavillings of a few enemies—and heard the whispered fears of many timid friends—yet whilst we were supported by the General Government, by the states of Pennsylvania, Maryland and Delaware; by the public institutions of Philadelphia—and above all, by the public feeling—we never hesitated in our course, but cheered on by the approving voice of our constitutents, we had only with all our energy to press forward to the great object we had in view. That object is now attained. A new channel has been opened between the North and the South. The peninsula which separated the waters of the Delaware and Chesapeake, has been, with a deep cut, cleft asunder; and on the canal, you have passed that barrier 70 feet below its surface.

Mr. President and my colleagues of the Board of Directors:—This day must be to you some recompense for your years of toil. It is a noble source of pleasure, to be able to show to your fellow citizens, that by your untiring efforts a great public improvement, by many deemed hopeless, has been successfully accomplished.

And to you, Mr. President, who have so long and anxiously presided over our labours, and in the vale of life, kept pace with those in the vigour of manhood, in the performance of arduous duties, it must afford no little gratification, on your intended retirement, that you have participated in the achievement of a great public benefit.

And now, sir, I have the most pleasing of all my duties to perform, in reporting, as chairman of the Committee of Works, that the Chesapeake and Delaware Canal is open for navigation.

I am sure that all in this assembly will cordially join with me in the hope that this canal may amply remunerate its stockholders, greatly contribute to the public good—and its usefulness only cease when the waters of the Delaware and the Chesapeake shall cease to flow.

To this Mr. James C. Fisher, the President of the Company, made the following reply:—

Mr. Chairman of the Committee of Works:

Sir—I have heard your address with much pleasure. It announces the completion of a great work, which we have all this day witnessed. The handsome manner in which, on behalf of the Committee, you have elucidated all the operations, and the serious difficulties they, in particular, and the other gentlemen of the direction have had to contend with, calls for a just tribute to the perseverance and great attention by which they have accomplished an object that has long been wished for.

This day, sir, is a day of jubilee to us all, but it is particularly so to those gentlemen, who, united with myself, made the first attempt twenty-six years ago, to connect, by a canal, the waters of the Chesapeake and Delaware. Of these, Mr. Joshua Gilpin is the only one now present.

Our attempt then failed for want of funds; but, about five years ago, a number of patriotic gentlemen of Philadelphia opened a new subscription to construct this canal, and about four hundred thousand dollars were subscribed by individuals in that city; that sum, with the aid received from the United States, the states of Pennsylvania, Maryland and Delaware, as well as from loans made by individuals and corporate institutions, has supplied the means of accomplishing the great work, the termination of which we now celebrate.

I trust that ere many months we shall behold the vast trade for which it is contemplated, passing on this canal, which, while it produces eventually a handsome revenue to the stockholders, will confer an invaluable service on the nation.

On arriving at the Delaware, the company found on board the steamboat an excellent dinner, prepared by Mr. Inslee, to which they sat down. After dinner, Mr. Nicholas Biddle, the President of the Bank of the United States, in rising to offer a toast, addressed the party in the following excellent speech.

[We regret that we have not room to insert, conveniently, Mr. Biddle's address in this number. There would, however, now be little necessity for republishing it, were it not a prominent feature in the history of the highly important event which it illustrates; we say it is the less necessary because it has already been widely distributed, as all such expositions should be, when characterised as is this address by the liberal spirit, expanded views and variety of information displayed by its author with so much force on other public occasions. We are glad, however, to be the humble means of sending such expositions of our public achievements *abroad;* as they cannot but inspire foreign nations with admiration of our enterprise and resources.]

PENNSYLNANIA CANALS.

The Governor of Pennsylvania has transmitted to the Legislature a report of the Canal Commissioners, showing the amount due on the several lines of Canal, on the 25th of October last, and an estimate of the additional amount that will probably be wanting to meet the demands on said lines to the second day of January next.

The total aggregate amount now due, and which will probably be wanted to meet the engagements of the State up to the 2d day of January, 1830, *is one million three hundred and forty-two thousand sixty-five dollars and forty-six* cents.

No man ever did a purposed injury to another, without doing a greater to himself.

LADIES' DEPARTMENT.

(From the Torch Light.)

THE COMPLAINT OF THE LUNGS.

Dear ladies, bear our sad complaint,
And pity our distress;
Too long we've burne our silent grief,
'Tis time to seek redress.

In cruel fetters bound, we plead;
Oh! hear our feeble cry:
Your corsets vile, oppress us so,
We scarce can bear a sigh.

We're hampered so, we cannot breathe,
We're stinted in our food;
We can't inhale the vital air,
To purify your blood.

'Tis in our cells, the blood and air,
Indulge their warm embrace;
But scarcely have they room to meet,
While you so tightly lace.

Our neighbours too are sorely pressed,
And grievously complain:
We're forced to bear each other's woes,
And sympathise in pain.

The heart you know, or ought to know,
Is pumping night and day,
To force the purple stream of life,
Throughout its circling way.

The stomach and the liver too
Deserve not such abuse;
With ceaseless care they analyse,
And fit your food fur use.

Oh! could you see our crippled state,
Our languid movements view.
You surely would not grieve us thus,
As thoughtlessly you do.

And why is all this rude attempt,
Your symmetry to change?
Can you correct your Maker's work,
Or better plans arrange?

The loveliest form that beauty wears,
Is woman fair in youth;
Her perfect shape, taste may adorn,
But not amend its truth.

Dear ladies, we intreat you then,
By all that's just in taste,
And as you value life and health,
Give freedom to the waist.

THE LUNGS.

MANAGEMENT OF THE HAIR.

Absolute cleanliness, by means of water alone, followed by brushing in the direction of the hair itself, in a dry state, is the true method of giving to the hair all the polish of which it is susceptible; and it is the effect of oils of all kinds to disturb and injure this; to say nothing of the disgust occasioned by the necessary dirtiness of greasy hair. It is the effect of oils also to prevent it from curling; and this object is most effectually obtained, if without artificial means, by curling it when wet, and suffering it to dry in that state. As to artificial applications, the whole of the so called curling fluids are mere impositions; while one, which is really effectual, and at the same time inoffensive, is a weak solution of isinglass, by which a very fine and permanent form can be given to the hair.

The Cadiz ladies have their chambers enlivened by the chirping of grasshoppers, which are confined in small cages.

MISCELLANEOUS.

FORMATION AND GROWTH OF THE TEETH.

There is much ingenious hypothetical writing upon this subject, which serves only to stimulate the speculative inquirer; but there are also many facts discovered and made known, which are sufficient to make it of the greatest interest and importance. It is, however, sincerely to be regretted that the best authors should have been so blind as to have written in the manner they have adopted. Those works to which I allude are large, and rendered expensive from the number of plates they contain; therefore, the public in general do not hold copies of them. On the other hand, at the present day, there is no better standard work than *Fox's Natural History and diseases of the teeth*—which is extremely imperfect considering the progress that has been made in the art since that work was issned; consequently it fails to satisfy the artist who will possess himself of it. This being the case, it is to be hoped some good may be effected by the aid of the public papers of the day, and that gentlemen of the profession in this country will generally contribute to this object.

The formation and growth of a tooth is one of the most beautiful operations of nature. So soon as the fœtus has taken its form, there is discoverable in both jaws, small membranous sacs filled with white gelatinous pulps, of which the teeth are created—at the same time there are thin plates of bone sent across the jaw which forms the socket of each tooth, and there is likewise a layer of bone immediately under the gum and over these rudiments of teeth, so that they are completely encased in bone; the object of this bony roof is to enable the infant to draw its sustenance after birth, without injury to the work going on beneath.

The upper part of the tooth (supposing it to be the under jaw of which I write) is formed first, and on this part, the enamel is much the thickest; the neck and fangs are gradually added, and as the tooth increases in growth, it begins to make a pressure upon the bone over it, which pressure causes an *absorption* of the bone until the tooth has completely worked its passage through; after this, it is not long before it makes its appearance above the gum.

The first set or temporary teeth, are twenty in number;—they have the following names: eight of them are *incisores* or cutting teeth—two central, and two lateral of each jaw:—the next are the *cuspidati* or eye teeth—being two in each jaw: the rest are called the *molares* or grinders, there are four in each jaw making the full compliment of a child's first set.

At about the age of six months, the two central *incisores* of the under jaw are seen, one generally preceding the other a day or two, then, in the course of a month the corresponding teeth of the upper jaw;—these are followed in a few weeks by the two lateral *incisores* of the under jaw, and soon after by the lateral *incisores* of the upper jaw. It would appear that the next in order should be the *cuspidati*; but this is not the case; they are placed much deeper in the jaw and their roots are longer, and it takes more time for them to form, consequently they are preceded by the first *molares;* those of the under jaw come through at about the fifteenth month, and are soon met by the upper. After these come the *cuspidati;* first in the lower jaw, and then in the upper. When about two years and a half old the second *molares* make their appearance, which complete the temporary set of teeth. I do not give this order of their growth by any means as invariable; for occasionally all the under *incisores* come within a few days of each other, when there is no appearance of teeth above; and, again, sometimes the upper precede the under teeth; but it is not usual for them so to do. There are instances, though rare, when children have one or two teeth through the gum at the time of birth; when this happens, it is advisable to remove them as they are nothing but crowns of teeth and will never come to perfection: if suffered to remain they will soon become loose, causing inflammation in the gum and great inconvenience to the mother.

During the whole process of the first dentition, children generally suffer much; it is a time of great anxiety with parents, and every attention is necessary to the fulfilling of the duties of this important trust.

It is a custom with many to rub the gums frequently with thimbles and other hard substances, because it affords momentary relief, and is pleasing to the child; the habit is not a good one: we harden the gum by so doing, and render it difficult for the teeth, to cut through. If among other toys, you give a child an ivory ring, he will occasionally bite upon it, but not so often as to do any injury.

When a tooth is ready to come through, and the child manifests pain, it is well and proper to lance the gum; but injury may be done if this is practised too early; there will a hard cicatrice form over the tooth which will retard rather than accelerate its progress.

F.

RAGS

Are annually imported into this country from Italy and Germany to a large amount. If the Germans are overstocked with this article while we are short, the reason is, that they preserve their rags and we do not: for there is no part of the world where the business of book making is carried to a greater extent than in the north of Germany.

A correspondent tells us of a lady in this city who has adopted the following method: A bag is hung in the nursery, into which her children throw all the rags they can find about the house, and when they amount to 6 lbs. she buys them at 4 cents per. lb. The money thus paid to her children is nearly sufficient to purchase all their play things. When the quantity collected amounts to 100 lbs. which it does about once in a year, they are sold to a rag merchant for six cents per lb. and the avails are applied to the purchase of books for a Nursery Library. In this way the children are taught habits of economy, while at the same time they are furnished with better means of information than are to be found in many houses of affluence. If "a penny saved is as good as a penny earned," there are thousands of families in this city who would do well to follow the same example.

[*N. Y. Jour. of Com.*

ROBERT BURNS

Being in church one Sunday, and having some difficulty in procuring a seat, a young lady who perceived him, kindly made way for him in her pew. The text was upon the terrors of the gospel, as denounced against sinners, to prove which the preacher referred to several passages of scripture, to all of which the lady seemed very attentive, but somewhat agitated. Burns, on perceiving this, wrote with a pencil on the blank leaf of her Bible the following lines:

"Fair maid, you need not take the hint,
Nor idle texts pursue;
'Twas only sinners that he meant—
Not angels such as you."

OIL MILL.—The oil mill, in Bayardstown, owned by Messrs. M'Kee, Clark & Co. is a very valuable establishment; and yet, from the number and value of the improvements annually, and almost even weekly, made in and around our city, it has hitherto, we believe, been but little noticed. This mill consumes annually nine thousand bushels of flaxseed, and makes, during every twelve hours, forty-five gallons of oil. It is driven by a small steam-engine, and employs three hands. [*Pittsburg Gaz.*

THE BRITISH POST OFFICE.

In 1653 the postage of England, Scotland, and Ireland, was farmed of the Parliament by John Manly, Esq. for 10,000*l.* per annum, and received its first organization from Cromwell, as a General Post Office; three years afterwards, Charles II confirming the regulations of the Protector, settled the revenue from it on the Duke of York, the produce in 1665 being 21,500*l.* Ten years afterwards this amount was doubled, and it still continued to increase until the reign of William and Mary, when it was considerably influenced by the hostile or tranquil state of the country. The revenue which during the eight years of war only averaged 67,222*l* a year, produced in the succeeding four years of peace, on an average, 82,319*l.* annually. A similar effect was experienced during the reign of Anne, when the wer postage was 60,000*l.* and in years of peace, about 90,000*l.* This disproportion has been reversed, and the last years of war were those in which the Post Office were the most productive On the union of England with Scotland, in 1710, a general Post Office was established, which included, besides Great Britain and Ireland, West India and American colonies. This extension of the Post Office increased the revenue to 111,461*l* What proportion of this sum was produced by the respective countries does not appear; but there is reason to believe that it was almost entirely Irish and English, for even so late as between 1730 and 1740 the post was only transmitted three days a-week, between Edinburgh and London; and the metropolis on one occasion, *only sent a single letter,* which was for an Edinburgh banker named Ramsey. The most remarkable event in the history of the Post Office, previously to it present removal and scale of magnificence, is the plan suggested by Mr. Palmer, in the year 1784, of sending the letters by the coaches instead of the old custom of transmitting them by postboys on horseback. From this moment the prosperity of the Post Office commenced; and the revenue, which, at first was not more than 5000*l.* a year, and which after the revolution of two centuries, only produced 146,400*l.* annually, yielded, 30 years afterwards, a net revenue of nearly 1,700,000*l* Nor was it only by increasing the revenue that Mr. Palmer's plan was beneficial, for answers are returned to letters in half the time, and with a degree of punctuality never experienced before; the expense is at less rate per mile than on the old plan; and when the plan had been so far carried into effect, that the mail coaches had travelled above 40,000,000 miles, not a single robbery had been committed or a passenger insulted.

Champaigne.—A company of Frenchmen has contracted with some farmers in Herefordshire for a considerable quantity of the fresh juice of certain pears, which is to be sent to them in London immedietely after it has been expressed, or before fermentation has commenced. With the recently expressed juice they made last year an excellent brisk wine, resembling the finest sparkling Champaigne; and we are told that the speculation was so productive that they have resolved considerably to extend their manufactory. [*Gazette of Health.*

THE FARMER.

BALTIMORE, FRIDAY, NOVEMBER 27, 1829.

MARYLAND AGRICULTURAL SOCIETY.

The next meeting of the *Trustees* will be held at the residence of Samuel W. Smith, on Thursday the 3d of December, at one o'clock precisely.

☞ Large Turnips.—We have now in our office, two turnips, which surpass in size and weight any thing of the kind we ever saw. They are both of the white top kind, one flat the other round. The flat one weighs *sixteen pounds,* and measures three feet four inches in circumference—as turnips generally weigh, about sixty pounds to the bushel, this single one measures a little over *a peck.* The other one weighs thirteen pounds, and measures two feet, seven and a half inches in circumference. They were raised by Micajah Merryman, Jr. Esq. near the Warren factory. After we received, them two others were sent us by James Howard, Esq which measured 2 feet 7, and 2 feet 5 inches in circumference. Had we not seen the two first we should have considered the latter as mammoth vegetables.

The following scraps, gleaned from distant papers, will show, that the past season has been no less favorable to vegetation in other parts of the country.

Mr. Israel-Hunt, of Sudbury, (Mass.) planted two bushels of potatoes the present year, from which he raised 157½ bushels! He planted the potatoes in the common way, not cutting out the eyes.

A gentleman in Concord, (N. H.) planted three potatoes from which he gathered three pecks.

A pumpkin, weighing 170 pounds, was raised this season by Mr. P. Stimmel of Harrisburg, Pa.

Mr. Sneeringer, of Adams, Co. Penn. raised 400 bushels of potatoes on one acre of land.

Eleven winter squashes, raised from one seed, by Mr. Bloodgnod of Long island, weighed 305 pounds Four weighed 34 lbs. each.

American Farmer.—Any person having the seventh volume of the American Farmer in good order, bound or unbound, may hear of a purchaser by applying at the Farmer office.

Mr. Skinner,

Please to present to Cousin Tabitha the compliments of one of your subscribers, and say to her, that he has in vain looked through every volume of "The American Farmer" for a recipe for making *metheglin.* In his distress (being surrounded by Temperance Societies who deny him *the ardent.*) he applies to her, confident that she will not disregard the supplications of a thirsty man, who, "for the stomach's sake," prays for some other beverage than cold water.

LATEST FOREIGN NEWS.

Advices from Liverpool to the 24th October, have been received at New York. Austria continued its hostilities against Morocco. It was announced in London that the failure of the bank of Lisbon was inevitable. An open rupture between the Pacha of Egypt and the Sultan was predicted in letters from Alexandria. Spain has recognised the government of Miguel in Portugal. The Sultan ratified the treaty of peace on the 20th September, and the Russian army was preparing to evacuate Adrianople on the 27th October.

THE MARKETS.

LIVERPOOL, *Oct.* 24.

Cotton.—This is the fourth successive week in which a very extensive business has been done in cotton; the sales during the last four weeks, reaching 93,890 bags. The import this week is 7406 bags, and the sales are 19,110 bags, (including 500 Egyptians and Maranhams taken for export, 400 Americans and Egyptians taken on speculation) at last week's prices, with the exception of Sea islands and Brazils which are rather dearer, viz. 410 Sea islands at 11 a 16¾d; 240 stained do. 5d a 10d; 7050 Boweds, at 5 1-8d a 6¼d; 2370 Alabamas, Mobiles, &c. 4¾ a 6¼d; 1420 Pernams, 6 7-8 a 7¾d; 1130 Bahias and Maceios, 6 a 6½d; 2080 Maranhams at 6 a 6¾; 50 common West Indies at 5¾ a 6d; 1890 Egyptians at 6½ a 7¾d; and 200 Surats and Bengals at 3d a 4½d per lb.

Liverpool Corn Exchange.—There was a moderate demand for wheat, at a decline of 2d per 70 lbs. on all descriptions of old, and 3d to 4d per 70 lb. on Irish new; English new, however, maintained its former value. In oats a fair extent of business was done at an abatement of 1d per 45 lbs Barley dull, and 4d to 5d per 60 lbs, Beans and malt each 1s per quarter, and Irish flour and oatmeal each 1s per sack cheaper. In other articles no variation.

LONDON, OCT. 23.

By the corn averages published yesterday, the duty on wheat has again advanced 1s per quarter. The duty on foreign wheat being at present 25s 8d per quar. There is also an advance of the duty on foreign barley, which is 1s 6d higher than last week's average.

From the London New Price Current of Oct. 20

The letters from Hamburg state the arrival of refined goods from the United States; low lumps at 28s. 5d. the quality was very bad, but it shows the gradual improvement in America, and we have no doubt in a few years she will become a formidable rival to England for both raw and refined sugars in the continental markets.

Sales at Havre, Oct. 22d—35 bales Lou. cotton, 91 to 97½; 234 Mobile, 80; 137 Uplands, 84 to 90, 14 bls. pot ashes, 52f; 100 do. 52,25; 33 do. pearls, 53; 120 bags St. Dom. coffee, 43½, in bond; 100 Rio do. 36½.

Prices Current in Boston, November 20.

Apples, best, bbl. 1.75 a 2.25. *Beans,* white, bushel 1.00 a 1.25. *Beef,* mess, bbl. 9.00 a—— ; cargo No. 1, 7.50 a ——; No. 2, 6.50 a —— *Butter,* inspected, No. 1, new, lb. .13 a .15. *Cheese,* new milk, .6 a .8; skimmed milk, 2. a .3. *Flour,* Baltimore Howard-st. 6.00 a 6 25; Genesee, 6.00 a 6.12; Rye, best, 3.75 a 4.00. *Grain,* Corn, bu. .62 a 63; Rye, .65 a .68; Barley .67; Oats .36 a .38. *Hogs'-Lard,* 1st sort, new, lb. .8 a 8½. *Pork,* clear, bbl. 15 a 16; Navy, mess, 12.00 a 12.50; Cargo, No. 1. 12 00 a 12.50. *Seeds,* Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool,* Merino, full blood, washed, .38 a .40; do. do. unwashed, .20 a .25; do. three-fourths, washed, .30 *a* .33, do. half blood, .28 *a* .30; do. quarter, washed, .25 *a* .26; Native, washed .25 a .26; Pulled, Lambs', 1st sort, .35 a 36; do. 2d sort, .26 a .27; do. spinning, 1st sort, 30 a .32.

Prices Current in New York, November 21.

Bees-wax, yellow .23 a .24. *Cotton,* New Orleans .9½ a .12½; Upland, .8½ a .10¾; Alabama, .8½ a 11¼. *Cotton Bagging,* Hemp yd. .18 a .21; Flax .13 a .18. *Flax,* American, 7 a 8. *Flaxseed,* rough, cask 10.00——clean —; *Flour,* N. York, bbl. 5.37½ a 5.50; Canal 5.50 a 5.62½; Baltimore Howard st. 5.87½; Richmond city mills, 5.87½; country,—— a 5.50; Alexand'a, 5.50 a 5.75: Fredericksburg 5.37½ a 5.50; Petersburg, 5.37½ a 5.50; Rye Flour, 3.50 a 3.75; Indian Meal, per bbl. 2.75 a ——; per hhd 13.50 a ——. *Grain,* Wheat, Vir. 1.06 a 1.10; N. Caro. —- a —-; Rye, North, 68 a 70; Corn, Yel. Nor. .48 a .58; Barley, .61 a —-; Oats, South and North, .30 a .37; Peas, white, dry 7 bu.——; Beans, 7 bu. 7 00 a 8.00. *Provisions,* Beef, mess 7.75 a 8.00; prime 5.50 a 5.75; cargo 4.00. a 4.25; Butter, N. York, .12 a .15; shipping, .8 a 11; Lard, .5 a .6; Pork, mess 11 00 a 11.75; prime 9. a 9 50; cargo —- a ——; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* .2.50 a .3. *Tobacco,* Virginia .4½ a .6 a .7; Kentucky, .4 a .6 a .7.

Prices Current in Philadelphia, November 24.

Bees-wax, yellow —. a .23; *Beans,* bushel $1.00 a 1.25; *Beef,* mess 10 a 10.50, prime 9 a 9.50, cargo 7; *Butter,* No. 1, 8½ a —, No. 2, 6. a—; *Cotton,* New Orleans .9½ a .13, Upland 9. a .10, Tennessee 9. a .10, Alabama 9. a 10; *Feathers,* South. .34 a .36, West. .33 a .34; *Flax* .7½ a .8. *Flour,* sup. 5.25; fine, 5.00 a —; Rye 3.62½ a 3.75; Cornmeal, hds. 12.25 a ——, bls. —— a 2.25; *Flaxseed,* cask —— a ; bu. 1.15 a 1.20; *Grain,* Wheat 1.02 a 1.05; Rye .53 a .54, Corn l. c. white, .47 a .48, l. c. yellow, .47 a .49, u. c. round, .55 a .57; Oats .30 a .36, Barley, Pa. .55 a .60; do. East. .60 a .61; black-eyed Peas .40 a .50. *Hams,* Jersey .9 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp,* 220 a 225; *Lard,* .6 a .7; *Oil,* linseed, 68 *a* 69; *Pork,* mess, 12.50 a ——, prime 11.50 a 12; cargo 10.00 a 10.25; *Rice,* 2 50 a 3.25; *Tobacco,* Kentucky .5 a .7, Vir. .4½ a .7; *Wool,* common washed lb. .18 a .22, half blood .26 a .—; three quarters blood .28 a .32, full blood 28 a .32; unwashed, generally 6 cents less, according to quality.

BERGAMI.

For sale, or to be farmed out for the next year,

A large well proved Young JACK, imported from Malta.—Inquire of the Editor of the American Farmer.

☞ The Editor of the Raleigh Register and Norfolk Herald will please copy the above.

WILLIAM PRINCE, proprietor of the LINNÆAN BOTANIC GARDEN, offers the following articles at the annexed reduced rates:

Camellia Japonica or Japan Rose, of the following double flowering sorts, at $3 each, fine plants, with numerous flower buds now formed—Red or Crimson, White, Striped, Pink or Middlemist—Maiden's blush or Buff—Pompone or Kew blush—Red Pæony flowered—and the following sorts at $3.50, of same size as above: Fragrant Myrtle leaved, Atrorubens, Anemone flowered or Waratah—and also, Single White, and Longifolia single red—also, Camellia Sasanqua roseo pleno, 5 to $6—Welbankiana or Pæony flowered, 6 to $8—Conchiflora, 6 to $8—Coccinea, with scarlet and striped flowers on same plant, 6 to $8—Rubricaulis, 7 to $8—Oleifera, single white, $5, and other varieties, proportionably low.

Roses.—The first assortment of 100 superb kinds, for $60, and the first assortment of 50 superb kinds, $35—in both these the Greville's Superb, and Lady Banksian, will be included if desired. *China Roses*, 12 kinds for $10, and 25 kinds for $20. *Chrysanthemums*, (or Artemesia,) 12 fine kinds for $4.50—24 kinds for $10, 36 kinds for $15, and 50 kinds for $25—in the latter are included nine entirely new kinds, lately received from China. *Greville Roses*, $1 each, larger size $1.50.

Pæonies—12 fine kinds for $9—20 kinds for $18, including the Chinese double white Whitleji—35 kinds for $50.

Carnations—12 superb kinds for $10—25 kinds for $18.75—50 kinds for $35—100 kinds for $60.

Iris or Fleur de Lis—12 fine kinds for $4—20 kinds for $6—30 kinds for $10—50 kinds for $18.

Auriculas, 12 kinds for $12—20 kinds for $18. Dahlias, 12 superb double kinds for $6—20 kinds for $11, and a few very rare and extra kinds, 75 cents each—and good double ones, 50 cents each. *Geraniums*, 12 magnificent kinds, including the splendid Macranthon, for $10—25 kinds for $20, and 50 kinds for $36.

Oranges, lemons, citrons, &c. one year's growth from Inoculation, $2—larger size in proportion.

Catalogues may be obtained of the subscriber, and orders through him, or direct to the proprietor, will receive attention.

All orders executed, have a *printed heading and his own or his Son's signature to the Invoice.*

N.B. A reasonable credit allowed to those who re-vend.

GIDEON B. SMITH, Agent,
Office of the Amer. Farmer.

JONATHAN S. EASTMAN,

Has now on hand and is constantly supplied (at his Agricultural, Horticultural, and Seed Establishment, No. 36, west Pratt street, Baltimore,) with WHEAT FANS of the most approved kinds, made of the best materials, and by good workmen; also, Cylindrical Straw Cutters, of which he is patentee, they are adapted to every kind of long forage, and surpassed by no other machine for the same purpose in any country. Likewise, a full assortment of Gideon Davis' highly improved Patent Ploughs,—the advertiser has recently made some improvement on the Shares of this Plough, which he trusts will be found an important advantage.

Also, Clezy's improved Scotch Plough, and improved Bar Share and Coulter Ploughs, of large size, Cultivators, Patent Corn Shellers, Dutch Cutting Boxes, Brown's Vertical Wool Spinner, Cast Steel Axes, superior Oil Stones, &c. &c.

Likewise, a general assortment of the Messrs. Landreths' Garden Seeds, warranted fresh and good, and at the same prices they are sold for at their store in Philadelphia. Orders will be received for Green House Plants and Bulbous Roots, from the Messrs. Landreth's splendid collection delivered here in good order, at the Philadelphia prices.

Also, Fruit and Ornamental Trees. On hand a good supply of Orchard Grass and Clover Seeds, both warranted of good quality.

P. S. Agents for the above, where gentlemen can leave their orders.

Messrs. Jona. Alden. Philadelphia.
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J. C & C. Burckmyer, Charleston.
Dr. W. W. Anderson, Statesburg, S. C.
J. G Herbert, Savannah, Geo.
Stephen Duncan, Esq. Natchez, Miss.

ALMANAC.

1829. Nov—Dec.		Sun. Rises.		Sun. Sets.		Length of days.		Moon Sets.	
		H.	M.	H.	M.	H.	M.	H.	M.
Saturday,......	28	7	15	4	45	9	30	7	5
Sunday,........	29	7	16	4	44	9	28	8	3
Monday,.......	30	7	16	4	44	9	28	9	3
Tuesday,......	1	7	17	4	43	9	26	10	7
Wednesday,..	2	7	18	4	42	9	24	11	12
Thursday,.....	3	7	18	4	42	9	24	morn.	
Friday,.........	4	7	19	4	41	9	22	0	19

Moon—First Quarter, 3d, 1 h. 26 m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—A very steady business has been done in flour for some weeks, with scarcely any change in price, owing to the equality of the supply and the demand. Howard street is selling from stores at $5.37½ to $5.44, and from wagons at $5.31 to $5.37½. There is a variation of a cent or two in wheat and corn since our last, and sales are making at quotations. The market is pretty well supplied with wood, and the best oak will command our highest rates. Beef on the hoof, has improved a little, and a small lot of prime quality was sold yesterday at $5.

Tobacco.--Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12.00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 20.00.—Fine yellow, 20.00 a 25.00.—Virginia, 4 00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week compriso 166 hogsheads Maryland, 83 Va. and 11 hogsheads Ohio.—Total 260 hhds.

Flour—best white wheat family, $6.25 *a* 6.75—super. Howard st. 5.37½ *a* 5.44; city mills, 5. *a* 5.25; Susquehanna, —. Corn Meal, bbl. 2.50 *a* 2.62½—Grain, best red wheat, 1.00 *a* 1.02; best white do. 1.05 *a* 1.10; ordinary to good, .90 *a*. 95—Corn, old white, .42 *a* .44; yel. .42 *a* .44; new, .36—Rye, .46 *a*.47—Oats, .27 *a* .28—Beans, 1.10 *a* ——Peas, .65 *a* —.—Clover seed, 3.75—Timothy, — 2.50--Orchard Grass, 2.00 —-Herd's, — *a* 1.50—Lucerne .37½ *a* .50 lb.—Barley, .50 *a* .65—Flaxseed, 1.25—Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .23 *a* .23½; in bbls. .24 *a* 25—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .25--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.—Hemp, Russia, ton, $220 *a* 225; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6. *a* 6.12½; No. 2, 5.25 *a* 5.62½; No. 3, 400 *a* 4.12½—Bacon, hams, Balt. cured, .9 *a* .9½—Feathers, .34 *a* .35—Plaster Paris, cargo price per ton, 4.62, ground, 1.25 bbl.—Prime Beef on the hoof, 4.00 *a* 5.00. Pine Wood, by the vessel load, 2.50 to 2.62; by the single cord, 2.75—Oak Wood, by the vessel load, 3.25 to 3.75; by the single cord, 3.50 to 3.67½.

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On the Use and Manner of Choosing and applying Salt Marsh Mud as a Manure; by the Hon. Wm. Johnson—Correspondence on the Use of Rice in the Navy of the United States—Disease in Cattle—Cotton Seed Hulling Machine—The Cotton Crops—Encouragement to Cotton Growers—The Cultivation of Sugar Cane—The Season in Mississippi--The result of fifteen experiments in cultivating Potatoes—American Grapes; the Isabella Grape; the White Scuppernong—London Horticultural Society—Forwood's Grist Mill—Opening of the Chesapeake and Delaware Canal—*Poetry*, The Complaint of the Lungs—Management of the Hair—Formation and Growth of the Teeth—Rags—Robert Burns—Oil mill—The British Post Office—Champaigne—Editorial, Large Turnips—Latest Foreign News and Prices—Boston, New York and Baltimore Prices.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy.

AGRICULTURE.

Mr. J. S. Skinner:

Sir,—Finding that the communication I sent to you on the goat and the sheep, was considered acceptable, I have endeavoured to furnish you a similar paper on the domestic ox. In a few instances I have been indebted for facts to Cuvier, Flemming and Carus, but my main dependence for each paper has been on the late admirable volume on the ruminantia by Major Smith, B. A., justly considered by the great Cuvier as one of the most eminent for his knowledge of mammiferous animals.

REMARKS ON THE DOMESTIC OX.

It would be without interest now to write upon the usefulness and value of the domestic ox, (*Bos Taurus*) an animal so well known, and which may be said to form a necessary part of the domestic household of every civilized inhabitant of the globe. It may be considered as one of the most valuable acquisitions to man, and one of those conquests over the animal creation, greatly promotive of civilization, and rendering the most profitable return for the care and attention bestowed upon it.

By its docility and strength the earth is tilled. Its milk and flesh, and its bones, from which gelatine is extracted, furnish us with the most nutritive food. Its fat yields us light, its hide leather, its horns are adapted to various purposes of ornament and economy, its hoofs yield glue, and even its hair is not without its value. Its very food is again returned to us, as that which is not absorbed to support its strength and increase its flesh, constitutes one of our most valuable manures.

In its general description it may be said to have, "a square concave forehead, with horns rising from the edge of the frontal ridge; is destitute of a mane, has a dewlap and thirteen pair of ribs; its tail is rooted in a kind of groove between the coccygian bones, and hangs down to its heels." It would appear that originally it was of a black colour, but change of food, climate, and domestication have made great varieties in this as well as other respects.

All animals of this genus are particularly offended with glaring colours, so that it is dangerous to expose one's self with red garments among herds that are not extremely docile; and even the common milch cow, so docile and tractable, will sometimes take offence at a red shawl, and render the safety of the wearer precarious.

The domestication of this species is supposed to have been accomplished originally by the Caucausians in Western Asia, to whom the earliest conditions of civilization are so generally traced. And with justice in this respect, as the tilling of the earth must have led to the idea of division of property, of the *meum* and *tuum*, the great basis of civilized society. The condition of the herdsmen is rude and but partially civilized, but that of cultivators of the soil is always found to be a highly advanced condition, in which the arts and sciences have flourished. Man may wander and hunt with the horse and the dog, but peace, a property in the soil, and all their consequent advantages to the arts and sciences, are not to be traced beyond the subjugation of the sheep and the ox.

There is yet in Scotland the remains of a wild breed of the ox, now kept only in parks, and but partially domesticated. It is called the *white urus*. *Urus Scoticus* of the books. Its size is small and colour white. The muzzle is however always black, and a part of the ear towards the tip red. The horns are white, with the tips lt downwards, and black. It is probably of the same race as the wild bull, which overthrew King Robert, and gave rise to the name of *Turnbull*, bestowed upon the individual by whom he was rescued.

The domestic ox is said to be precisely the same in character with the wild, differing only in the "flexures of the horns and external appearance," the results of climate, food and treatment. Those with straight backs (not the hunched races) are considered more pure and more direct descendants, from the "probably original region of domestication, retaining in their stature and colour a closer resemblance with the urus, but developing in general a greater extent of horn." The hunched races are supposed to have been derived from a different species.

"The breeds of the Kisquire and Calmuck Tartars, those of Podolia and Ukrane, of European Turkey, of Hungary and of the Roman states, are among the largest known." These are all distinguished for large spreading horns with dark points, and of a "bluish-ash colour passing to black." Italy and Tuscany also possess another race, smaller than these, but remarkable for its white colour, and the great beauty of its form. It is the form of one of these copied in the beautiful engraving which represents Jupiter in the act of eloping with Europa.

Ancient Egypt has the reputation of having once had a large white breed, and one is also found in Abyssinia, but these latter are frequently coloured. The Caffres and Hottentots also possess a fine race, "marked with large brown or black clouds." Some of these attain a great size, and constitute their war oxen. "They ride on them on all occasions, being quick, persevering, extremely docile, and governed by the voice or whistle with surprising intelligence."

There is a breed of large stature in Denmark, from which the "tall Dutch race" is supposed to have been produced. These last are considered as the origin of the Holstein breed, which is "the parent of the old unimproved English breeds." The Dutch race is considered the origin of the large breeds of Salamanca in Spain, and these last transported to Cuba and South America, to have furnished the races of those countries.

Breeds with small horns exist in the Crimea, Germany, Sweden, France, England, Italy and Spain; and the "Polled races or hornless cattle," originally a German race, have spread to Iceland and Norway, and are now found in Scotland, France and Spain, from which latter country, they have been transported to Paraguay. They are also common in Madagascar and in Abyssinia.

No nation deserves as much praise as the English for its endeavours to improve the breeds of all our domestic animals, and the great success which has resulted from their exertion, is truly a noble, and may almost be assigned as their exclusive reward. With them the dog, the horse, the sheep, and the ox, have attained a singular degree of perfection. All our fine breeds of the latter animal have been derived from that country. We will subjoin a short description of the various improved English breeds

1st. The *long horned* or *Lancaster breed*. This breed has long horns, thick hide, short hair, hoofs large and much depth of the fore quarter. Not remarkable for quantity of milk, but its milk yields a great deal of cream. Variously coloured, but generally has a white streak along the spine. The *improved Leicester* is a variety of this breed.

2d. The *short horned*. These include the *Holderness*, *Teeswater*, *Yorkshire*, *Durham*, and *Northumberland* breeds. They are considered the most improved kinds, producing the greatest quantity of milk, and arriving at the greatest weight, and are generally preferred over all others for the dairy and the shambles. Some individuals have been fed to twenty-one hundred the fore quarters.

3rd. The *middle horned*. These include the *Devon*, *Hereford* and *Sussex* breeds. They do not produce as much milk as the former, but generally fatten well, younger. The flesh of the Devon is the most esteemed, but it is not so large a race as either of the other. They are all active and hardy animals, and fine for the yoke.

4th. The *Polled* breeds. The most valued of these is the *Galloway*. It is not large, weighing generally about five hundred "when not regularly fattened," of a fine form, and is said to retain its flesh and not to lose weight by driving to market. The *Suffolk Duns*, are a variety of this race.

5th. The *Highland* breeds. These are variously coloured, and generally badly formed, but they are said to yield milk abundantly, and to fatten rapidly.

6th. The *Welch* breeds. Of these there are two distinguished; one considered a cross from the long-horned, and esteemed next to the Devon for the draught; the other is lower in stature, black in colour and well made, and fine for the dairy.

7th. The *Alderney* or Gurnsey, is a small breed, with crumpled horns, and frequently badly formed. In this last peculiarity they have been lately much improved. Their colours generally yellow or light red. The genuine Alderney is described as having the colour within the ears yellow, also the root of the tail and the tuft at the end of the tail. Are good milkers and make fine beef.

Although the French have not bestowed the same attention upon the improvement of these animals as the English, they have, however, several fine breeds. All of these have been classed into two divisions: the first called "*Bœufs de haute crue*, or those of a middle or small stature; have a fierce look, thick hide, large dewlap, black or greenish horns, and live in the mountainous departments." The second are called "*Bœufs de nature*. Stature large or middled sized, head and body small, horns white, hide thin, hair soft, and of a mild aspect. Belonging to the low and level lands and constitute the Cholets, Nantz, Anjou, Marcais, Breton, Mans, Dutch, Cotentin and Comtois breeds."

We are disposed to consider the hardy and active cattle of New England, as belonging to the middle horned, and probably the Devon breed. If so, they have much improved in that climate, as they frequently develop great size. Attention to breeding from those of the best characters and forms, of animals already acclimated and shewing propensities to improve, is always a successful course, and is the basis of the improvements in England. Foreign crosses from improved stocks are doubtless advantageous, but these should be introduced with caution into climates differing essentially from that from which the improved stock is derived, and great care should be observed that the stock introduced is not of a tender family, requiring much attention and stall-feeding, so opposed to the habits of our country, and so much beyond our general means, and also from the prices of labour and food rather an unprofitable course.

The fine breeds of the South branch and upper parts of the Potomac, also appear to be improved Devons. They have, however, generally well developed horns, as have also the greater part of the cattle of the western country, but those with small horns are considered a better race and more easily fattened.

The polled races are also frequently met with in our country.

The hunched races differ from the straight-backs, not merely in the hunch, but in their voice, and they possess also greater liveliness and activity. These last properties might adapt them admirably for the draught, where quick and active motion is so desirable. They are common in Asia and Africa, have generally crumpled horns, and much white in their colouring. Many suppose these to have originated from a species different from the straight-backs.

There are animals indigenous to North America, which have a strong resemblance to those about which we have been treating, one of these is classed as of a different genus from the *Bos*, and is called of the genus *Oribos*. It stands as the only species of this genus. We allude to the *Musk ox*, (O. Moschatus) of the northern regions. It is described as in "size equal to the Gurnsey cow, with brownish black hair, occasionally marked with white blots, and it grows to a very great length. Its legs are generally white." It is a very fierce animal particularly in the rutting season, when the bulls frequently fight until one is killed. They live in small herds, seldom exceeding forty. There is generally an over proportion of cows supposed to be a consequence of the deadly contests between the bulls, as these are frequently found killed. They emit a strong musky smell, but their flesh is considered good, particularly that of the calves and heifers. Three hundred to three hundred and fifty pounds of beef is the general yield of a good carcass. No endeavours have yet been made to domesticate these animals, and our knowledge of them is rather limited, derived principally from the hunters of Hudson's bay and the few travellers who have penetrated into that region.

The other animal to which we alluded, but which is however of the genus Bos, is the *American Bison*, (*Bos Americanus.*) Its common and well known name is the buffalo. It has "small black horns, very distant, turned sideways and upwards, height at the shoulder about five feet, at the croup four, and length from nose to tail eight." But these dimensions no doubt vary considerably, from the weights which have been reported of some individuals. The disposition of its hair and its general aspect are well known in our country, from frequent exhibitions of the animal, and the many excellent prints of it which exist. Its structure forward, is extremely robust and heavy, but light and weak behind. "The body is long, having fifteen pair of ribs, and but four coccygian vertebræ." They are active and irritable, but not vicious, except in the rutting season, and might, I have no doubt, be easily tamed; many have been, partially, at our frontier posts, and endeavours have been used to produce a cross between the buffalo bull and the domestic cow, but with fatal effects to the latter, as she has been found unable to relieve herself from the calf. Greater success would without doubt follow the experiment of a cross between the domestic bull and the buffalo cow, as the probable change of conformation of the issue would facilitate the delivery from a mother, formed to relieve herself from a full hunch. But the success is hardly desirable, as the issue would in all probability be unprolific. The parents are evidently, and with great propriety so considered by naturalists, of different species. At least the known differences in osteology justifies such a conclusion, until the unequivocal experiment shall prove to the contrary. The period of gestation is said to be different from that of the domestic ox.

All these are ruminating animals, or animals which chew the cud. While mentioning the cud, it may not be amiss to notice a common error in relation to this animal, and which I have found to prevail in the minds of many intelligent farmers of our country. When indisposed, it is frequently said that they have lost their cud, as they are not at such times observed to chew it, and a cud or ball of grass or hay is made up and placed in the mouth as a remedy. Now this is an error. No disease of the kind can exist, nor any such remedy be efficacious. The chewing of the cud is merely the masticating of the dry food previously swallowed and deposited in the paunch. All ruminating animals have four stomachs, so disposed that the food can pass from the gullet into either of them. The first is the largest, and is called the paunch. In this the food after a slight grinding between the teeth is first received, as in a storehouse for future use, and is there subject to but little change. The second is called the honeycomb or bonnet, from its peculiar formation. The drink of the animal which does not enter into the first, passes directly into this second stomach, into which also passes gradually the food from the paunch, where it probably undergoes more completely a formation into balls or cuds, and where it also becomes moistened from the drink of the animal. From this second stomach, the food properly prepared, is ejected upwards into the mouth, there to undergo its second and more perfect mastication, after which it passes down the gullet again into the third stomach.

The third stomach is called the *manyplies* or *tripe*. Into this the food is received after its last mastication, here it first completely changes its character, and emits an offensive smell, and from this it passes directly into the fourth stomach, called also the *rennet*. The fourth is considered as the digesting stomach, into which the gastric juice is emptied to mix with the previously prepared food.

While the young are confined to their mother's milk, the last is the principal and the largest of these stomachs, and nature has singularly provided for this state of existence, by bringing it closer to the gullet, and partially obstructing the communication with the paunch, which attains its great size only by degrees, and as the animal uses dry food.

From these facts it will be readily seen, that the disease of a loss of the cud and its remedy are altogether imaginary. When the animal does not ruminate it probably is indisposed in its digestive organs, but the curative mean should be different from that which is generally pursued.

If any one will attentively observe the domestic cow when in the act of ruminating, the process of throwing the food up into the mouth, masticating it and swallowing it again, will be easily perceived; and in addition to the authority of books I once witnessed a very clear demonstration, of the number, uses and mode of action of the stomachs, in a subject, by that distinguished naturalist, as well as eminent physician, Dr. R. Harlân, of Philadelphia, in his course of lectures on comparative anatomy.

A.

FARMING.

If one half the zeal, energy and expense that blots so many gazettes with low and coarse abuse, setting the community by the ears for the sole gain and the paltry purposes of a few demagogues and office-keepers, were bestowed on the advancement of agriculture; if the people were half as ambitious to improve and beautify their fields, as they are to settle the nation; and half as angry with thistles, thorns, and poor fences, as they are with their political opponents, who, probably wish as well to the country as themselves—we should have more productive fields, less complaints of poverty, more ability to be charitable and munificent, and abundantly more good feeling. From Pittsburg to New Orleans the son ploughs as his father did before him, and the great mass of farmers are as stationary in theory as they are in practice. Nine in ten of them believe, at this moment, that book farming is the mere useless, visionary dreaming of men that know nothing about practical agriculture.

We would tell them that England is the garden of Europe, simply because almost every acre of the ground is cultivated scientifically, and on principles which have been brought to the test of the most rigid and exact experiment. We would tell them that New England, of whose soil and climate they are accustomed to think, as consigned by providence to sterility and inclemency, is the garden of the United States, only because the industrious and calculating people do not throw away their efforts in the exertion of mere brute strength—but bring mind, and plan, and system, and experience, to bear upon their naturally hard and thankless soil. On every side the passing traveller sees verdure, and grass, and orchards, in the small and frequent enclosures of imperishable rock, and remarks fertility won from the opposition of the elements and nature. After an absence of ten years, on our return to that country, we were struck with this proud and noble triumph, conspicuous over the whole region.

The real benefactors of mankind, as St. Pierre so beautifully said, are those, who cause two blades of wheat to mature where one did before. The fields ought to be the morning and evening theme of Americans, that love their country. To fertilize and improve his farm, ought to be the prime temporal object of every owner of the substantial soil. All national aggrandizement, power and wealth may be traced to agriculture, as its ultimate source.—Commerce and manufactures are only subordinate results of this main spring. We consider agriculture as every way subsidiary not only to abundance, industry, comfort and health, but to good morals, and ultimately even to religion. We shall always say and sing "Speed the plough." We shall always regard the American farmer, stripped to his employment, and tilling his grounds, as belonging to the first order of noblemen among us. We shall always wish him bountiful harvests, good beer, and moderate use of cider, and, if he will rear it himself, of the grape, but none of the pernicious gladness of whiskey; and we shall only invoke upon his labours the blessing of God, and say of him "peace be within thy walls."

[*Flint's Western Monthly Review.*

CORN AND COTTON.

J. S. Skinner, Esq. *St. Francisville, Oct. 15th*, 1829.

Our crops in this section of Louisiana, considered in the aggregate, are very fair; as we have made more corn, peas, potatoes, &c. than will be necessary for domestic consumption; which, I am rather ashamed to confess, was never the case before since I have resided in this state. It is certainly, good cause for a *farmer* to blush, to know that he has not made on his own farm, enough of those articles which are essentially necessary to the comfort of his family, and to the very existence of his domestic animals, without whose labour, he would be "poor indeed." The high price, which the great staple of this state formerly commanded, and the low price at which *corn* could be obtained from the prolific fields of our western brethren, induced the planters of Louisiana to neglect the cultivation of corn, and to end all their energies to the production of cotton. That course of poliry continued for so long a tim that many planters were annually dependant upo the supplies from above, to enable them to feed th slaves, and domestic animals, and some began to t nk, that the fertile soil, and genial climate of Loui na, were not adapted to so trifling a product as th of corn. The great scarcity in general, and abs ute want of corn, in particular districts, last win and spring, opened the eyes of the cotton plante to the pernicious consequences of their previous eglect of their corn crops, and induced them to nt more extensively of that article; from whic circumstance, combined with the unusually pro ous season *for corn*, the country is generally bl ed with an abundance of that staff of a farmer's e.

The cotton cro are not comparable with the corn crops, which attributable solely to the fact, that, in many case lanters were unable to cultivate their cotton, the want of *fat* horses; and they were, to use ommon phrase here, *swamped* in the grass. Wh er had plenty of corn, in the working season fo easts, has generally a good crop; and those, wh ere so unfortunate as to lack an abundance of th ll important article, have no right to complain o e deficiency of their cotton crops. As long as grand staple is worth as little as it now is, I th cotton planters, who wish at the end of the year make "buckle and tongue" meet, must produce home every thing that their necessary wants cal r. There is justly, I think, much complaint mad the cotton planters against our present odious, qual, and oppressive tariff; and unless it is ver tensively modified this winter by congress, I see no other refuge from ruin open to the cotton planter, but to make at home his own negro clothing, raise his own stock, and produce and manufacture every thing which he now so freely purchases of his eastern and western brethren. I do not know whether this is practicable, throughout the whole cotton region, but I can answer for the high lands of Louisiana, which constitute the cotton section of this state. Here we can make our own corn, raise our own horses, mules, horned cattle, hogs, sheep, and manufacture our own clothing with as little difficulty and cost as in any other section of the world. I have lived in the west, and spent some years in the middle and northern states, and I have never yet seen the state, or country, where domestic animals of all kinds were so prolific, and so easily reared as in this section of Louisiana. Yours, &c. A. B.

(From the New England Farmer.)

POTATOES.

Mr. Fessenden,—In your paper of November 6, much is said, and many authorities quoted, on the subject of raising potatoes, but not a word do I find, as to a few things, which, after all, are in my humble opinion, of more importance than all the rest;—I mean manure, the form of the hill, and keeping the crop free from weeds. As to the matter whether you plant a large or middle sized, or small potato, or whether you cut them in pieces, or plant the sprouts only—as a plain practical man, I have only to say, what indeed some of your authorities intimate, that one large potato, (quite large,) or two or three of a middling size, (that is, a fair size for the table,) are far the most likely to insure a good crop. Why should not your potatoes for planting be *selected*, as well as every other seed? I am inclined to think it bad economy to cut and sprout for planting, merely with a view of saving seed. With particular care, they may sometimes do well; but I apprehend these cases to be exceptions, and that generally the cultivator is disappointed. Some seed is saved by it, but the labor is the same, and, so far as regards cutting and sprouting, is increased. As to the soil—newly broken up land is no doubt to be preferred—if it be not too wet.—A dry soil does badly.—A cool and moist season is found best—but for this we depend on a kind Providence and no precautions, in planting, are of much avail. Of the manner of *boiling*, I say nothing.—A good cook knows more than I do about that.

And now Mr. Editor, as respects my important things.

1. As to manure.—I have this year had a little experience that has proved a good lesson to me. The long red potato, which we all know is among our most productive;—the Elam potato from Rhode Island, and the Chenango,—both excellent kinds, and which grow to a good size,–these I planted round my corn field in two or three rows, and some of the long reds in a patch near the centre of the corn, and gave them the same care that the corn had, that is, three ploughings and hoeings, and the same manure, being a *compost of a year old, made up of about one half of clear cow and horse dung, and the other half of best meadow mud;* and I may add, I gave them the same ample quantity to the hill that I did the corn. An acre or more—adjoining the corn field, generally the same kind of soil—I planted wholly with the blue nose potatoes, and a yellow potato, which I value much, and which I had from Quebec about four years ago. This acre or patch I had manured with what we farmers call *coarse, or long dung; being the mot and newly made manure from the barn yard and cellar, with a good mixture of old refuse hay and straw, and nothing else.* Now those which I planted with the *old compost manure,* did not produce one third part as much as those with the new. I speak within compass when I say this. The patch with the *coarse manure* turned out famously—about a bushel for every ten or twelve hills. The others took so many hills to the bushel that I was ashamed to count them—*I impute the difference solely to the dung*, and will take good care how I get caught so again. It could not well be in the *kinds* of potato—for we plant no kind more productive than the long reds. In saying all this about manure, Mr. Editor, I tell nothing new to our good old practical farmers. They understand the thing perfectly. Whether it be better to put the potato under or over the dung, in planting, I offer no opinion, excepting my belief that there is little or no difference. Generally, the manure is dropped first.

2. As to the form of the hill.—I have noticed in New Hampshire and Vermont, where they understand this matter as well, and have as fine crops as any where, that, instead of making the hill like a sugar loaf, they make it of about the shape that the plough makes it where you plough both ways, with the rows about three feet apart.—Indeed, I believe they think but little drawing in or hoeing up necessary, after ploughing both ways. In this mode it is evident that, instead of the rain running off, as in the case of hilling up to a cone, the flat hill receives it all, and gives room for the roots to expand, and does not expose a great surface, all round, and near the roots, to be dried up.

3. Keeping the potatoes free from weeds.—Little need be said on this head. Nothing does well, if you let your ground run over to weeds. None but sluggards and bad calculators will permit it. In some land, perhaps, two ploughings will do, but generally, three are better. This must depend on circumstances. You have only to keep the weeds down, and that ought to be the rule as to the number of hoeings. A Middlesex Farmer.

(From the New England Farmer.)

MANGEL WURTZEL.

Mr. Russell,—I consider it a duty to make public such experiments as are likely to be of general benefit to the community. If you think the following statements worthy of a place in your paper, you are at liberty to insert them.

The culture of the Mangel Wurtzel is surely an experiment, as there is none raised to my knowledge in this part of the state. I was induced to make the experiment from reading an account of its culture, in Fessenden's New American Gardener, and accordingly planted one fourth of an acre with one pound of seed which I obtained at your establishment, not expecting, however, to get so large a crop as those stated by Col. Powel and others; but I have succeeded beyond my expectation. The soil is a sandy loam, upon a rocky, retentive subsoil, not naturally deep or strong. Last year it was planted with Indian corn, and manured with about 25 loads of fermented manure to the acre; and produced about an average crop, say 50 bushels to the acre. Last spring the ground was ploughed three times, once rather deeper than usual, harrowed and rolled, then furrowed three feet apart; but it ought to have been but two; and about ten loads of compost manure put in the furrow, which was composed of about equal parts of argillaceous cleanings of ditches, barn yard, and barn window dung, heaped and fermented together. The manure was then covered by ploughing back furrows upon the same, leaving the land in high ridges. I then passed a heavy ox roller over the ridges crosswise, which laid them in gentle swells, and compressed the soil and manure together. (The roller can hardly be dispensed with if you wish your soil reduced to fine tilth, and you cannot reasonably expect to succeed without.) About the 12th of May the land was planted in the following manner—first, a wheel made to fit in the place of the common wheelbarrow wheel, with pegs in its circumference, about 1½ inches long, was run upon the ridges, making holes about four inches apart; and one capsule or berry, was dropped in each, and the earth pressed upon them; but from some circumstance one third of the ground was left vacant, which was set with French turnips and cabbages. At the second hoeing, the plants were thinned, and left about eight inches apart in the rows, and were hoed but once afterwards. The quantity of land after deducting that part set with turnips and cabbages, did not exceed twenty-seven square rods, from which I had 16,345 pounds after the tops were cut off. I have no doubt that the roots would have been as large if the rows had been but two feet apart, as there was a space between, more than one foot in width, that the leaves never covered. The leaves are excellent for swine and cattle; a part of mine were stripped four or five times, and the root was not injured thereby. The leaves will dry up and fall off early in autumn if they are not stripped off, except a few at the crown, which I found most convenient to cut off before pulling the roots, for they stand 8 or 10 inches above the ground. Cattle and swine devour the roots greedily, and I think them excellent for fattening, and milch cows.—Mine cost not more than one dollar per ton, aside from the use of the land and manure, which I think must be considered cheap fodder.

Does the sugar beet differ materially in quality, quantity, or its manner of culture from the Mangel Wurtzel? Yours, &c. E. D. A.

Southbridge, Nov. 2, 1829.

[The Sugar Beet seldom attains the very large size of the Mangel Wurtzel, but is a more solid root, whiter, and sweeter.—*Ed. N. E. F.*]

ON A NEW WHEAT THRESHER.

Fauquier Co. Va. near Middleburg, P. O.
Mr. Skinner, *Loudon Co. Nov. 20, 1829.*

Dear Sir,—I have seen in the National Intelligencer, an extract from the American Farmer, stating that a new wheat thresher has lately been invented, which, moved by a one horse power, is capable of getting out near a hundred bushels of wheat a day; and that the cost of the machine does not exceed 35 or $40, and withal that it is simple in its construction, and not liable to get out of order.

Such an instrument is the very thing that has been so long desired by farmers generally. The powerful six horse machines that are made by Wright, of Newtown, Frederick, Co. Va. although excellent and effectual instruments, are too costly in the first instance, and require too many hands to attend them to suit the majority—the great body of farmers. If the machine first above alluded to, turns out to be a durable effectual instrument, it will go into general use like the wheat fan. It is not the thresher that will get out the must bushels in a day that will be most useful, but the one that will suit the means and wants of the most farmers. If you have it in your power to give any further information respecting the machine alluded to, you will greatly oblige me by communicating with me on the subject, or by referring the patentee to me. The machine if it answers upon full trial will be the desideratum long sought by the farming community.

Our crops of corn are good, and the wheat that was sown in due season looks well. The wheat near Buckland, along under the mountain, is much injured by the weavel. This neighbourhood was worn out by tobacco, and when we commenced farming, the plaister wrought miracles and run us all mad. Plaister still exerts some influence upon our crops, but nothing in comparison to what it did at first. But still although our clover and wheat crops are lamentably lessened, yet we canoot believe that the plaister has injured the land, for our corn crop is annually improving. Deep ploughing and plaister encourage blue-grass, and that grass leaves the soil in a good state for corn; but blue grass is a great enemy to clover and wheat.

Deep ploughing answers well for corn, but I am strongly inclined to the opinion that we have ploughed too deep for wheat.

I hope you will, from the interest you take in every thing calculated to enhance the farming interest of the country, excuse a plain old farmer for the liberty taken in addressing this letter to you.

Yours, respectfully, Isaac Foster.

POTATO FARINA.

The farina obtained from potatoes is now an article of commerce in Scotland, where very fine samples of it are brought to market. It is stated to be quite equal to genuine arrow root, and is sold at about half the price of that preparation. Mixed with wheaten flour in the proportion of one-third, it is a great improvement to household bread, and is light of digestion. Sir John Sinclair's mode of preparing the farina is perhaps generally known; but the following short account of the process for domestic use may not be uninteresting:—Into a pail of clean water, place a fine colander or coarse sieve, so that it may be two inches in the water; grate the potatoes, when pared, into the colander, taking care from time to time, to agitate the pulp in the colander, so that the farina may fall to the bottom of the pail. When the fibrous parts which remains in the colander, or sieve, has accumulated so as to impede the washing of the farina into the pail, remove it. About one gallon of potatoes is sufficient for a pail of water. After the water has remained in an undisturbed state for twelve hours, pour it off—the farina will be in a cake at the bottom. It is to be dried slowly before the fire, being rubbed occasionally between the hands, to prevent its becoming lumpy, and it is then fit for use. The French prepare an extract from the apple in the same way; but this is expensive, as the farinaceous part of the apple is very small. [*N. E. Farmer.*

INDIGO.

It gives us much pleasure to learn, says the Norfolk Herald, that the cultivation of this valuable commodity is entering largely into the agricultural pursuits of the North Carolina planter. It will add more to the real wealth of the state than all its gold mines. We have received from a friend in Edenton, the following gratifying information upon this head.

"A large quantity of indigo will be raised next year in this neighborhood. Mr. William Righton, one of our most enterprising and intelligent planters, manufactured 150 lbs. the last season from seven acres of poor high land, at less expense than it could have been cultivated in cotton. The quality is very fine. The production of this experimental crop will probably be sent to your market. Mr. Righton intends cultivating thirty acres of prime land in this valuable article the next season, and many of his neighbors larger or smaller crops."

While noticing this new source of agricultural profit, we take the liberty of recommending to the attention of the planters of the Albemarle districts, where, we believe it has not yet been attempted, the cultivation of the Palmachristi, or Castor bean, from which the castor oil is expressed, their soil and climate being well adapted to its growth. Large quantities of this bean are annually raised in some of the counties of this state bordering on the Chesapeake, and find a ready and profitable sale, paying two to one, acre for acre, more than Indian corn. There are numerous manufactories for converting the beans into oil in this section of country, and the oil is becoming a staple article of exportation.

One ounce of practice is better than a pound of precept.

HORTICULTURE.

(From the New England Farmer.)

CULTURE OF CAMELLIAS.

Mr. J. B. Russell:

Dear Sir,—You ask my opinion of the causes of the fall of the buds of the Camellia without opening. It is a most vexatious disappointment after a twelve months' care. It has occurred to me *once* and *once only;* and to a friend to whom I gave a double white, (worth, in my opinion, all the others put together, however curious they may be,) I can only say, that in this limited experience in *two* cases *only*, it was caused solely by the *scaly* insect. To professional gardeners, this insect is familiar; to general readers, not so. In the camellia, it attacks the flower bud in preference, and at its insertion, in the stalk. Three or four of them are fatal to any bud. It requires a close observation to discover them. It seems, to a careless observer, to form a part of the plant itself, and to be a mere light brown speck on its surface. A penknife will remove it from a single plant in a parlor, or the point of a lady's scissors, but it requires patience, and early care, before the calyx of the flower turns to a *brown* color. On a large scale, this remedy is inapplicable, and I can only say, that from European cultivators, I learn, that boiling water has been found to be destructive to the insect, while its temporary use was not injurious to the living plant. Of course, great care should be adopted in applying such a remedy.—But while I state the only cause which has produced the abortion and fall of my own flowers, in two cases only, I think it proper to say, that other causes may *concur with* the scaly insect, or even *without* it, to produce the total failure of the blossoms of the Camellia. As it is, without question, the most beautiful *parlor flower*, putting forth its blossoms when they are most required, from November to March, it would be proper to say, that it often suffers from too *much* water, and too *little*. When not in growth, or in flower, its waterings should be sparing. At *no* time should it have a pan *filled with water;* nothing could be more destructive to it. Pans are generally destructive of all plants, except aquatic ones; and are only adopted by ladies, who dread the moisture upon their paint, or carpets. They are perfectly right in preferring the more important object, but they cannot hope that plants should flourish in a soil saturated with water. To return to the Camellia. It is better adapted to the parlor than any other plant, but it must be kept free from insects. I think it probable that soot, or sulphur, or lime, would without the use of boiling water, produce this effect; but there are objections to their use, in a parlor, far surmounting any possible good effects.

In conclusion I may say, that *parlor cultivation is difficult* with all plants. The air is often too dry; always unnatural; and that it is better occasionally to buy new plants than to see old ones in a constant state of deterioration.

INTERNAL IMPROVEMENT.

Opening of the Chesapeake and Delaware Canal.

(Concluded from p. 293.)

MR. BIDDLE'S ADDRESS.

Mr. President,—I congratulate you on the event which we are assembled to celebrate. We all rejoice with you at the accomplishment of this great undertaking—at once a national honour and national blessing.—This is indeed a day of triumph—not a common and sanguinary victory—not a day of successful strife of men over their fellow men, too often provoked by crime—oftener achieved by hazard—and always shadowed with the sufferings by which success is won—but it is a day of pure and unstained exultation. It is the triumph of genius over nature; the triumph of resolute industry over obstacles deemed insuperable.

More than two centuries have passed since this work was contemplated by the earliest adventurers to the Chesapeake, one of whom, Sir James Argol, wrote to England in 1613, that he hoped to make a cut "between our Bay and the Delaware." About sixty years ago it engaged the public attention, but it languished among the dreams or the hopes of men, until within a few years it felt the impulse of that awakened spirit of improvement which since the last war has probably achieved more in this country, than the efforts of all Europe have accomplished in the same period. It was then that the concurring aid of private enterprise, of the liberality of the three states more immediately interested in its success, and eminently the wisdom of that congress, many of whose distinguished members gladden this assembly with their presence, produced the result which we are now enjoying. It will justify and perhaps increase that enjoyment, if we glance for a moment backward on its difficulties, and forward to its advantages. Its difficulties, like all difficulties, seem far less now they are vanquished, but we have this day seen enough to enable us to estimate them. We saw that mountain through which we glided so gently, rent widely asunder for many miles by human hands—we saw in its lowest recesses the ocean sands which so many ages have toiled to cover, glistening once more in the sunshine—we met there that vessel with all her lofty array of masts and spars, large enough to go forth and circumnavigate the globe, yet overawed as it were by those summits which frowned darkly down on that strange intruder. But this divided mountain, in itself a work of art without parallel in this country, was at least a calculable obstacle. A greater danger lay in those treacherous morasses which seemed to shrink as they were approached, and threatened to absorb in their obscure depths all that industry could accumulate there. It is an extraordinary fact, and one which I should fear to mention, could it not be vouched by so many who hear me, that some of the borders of the canal on which we this day trod so firmly, sunk to a perpendicular depth of one hundred feet, if not more. It was then that all the hazards of their enterprize crowded on the projectors of it. The original design had been reproached as visionary—its condition was then pronounced hopeless—and hopeless it would have been, but that the spirit of those who directed it, rising with the pressure of the danger, made every obstacle yield to the stubbornness of their unbroken resolution. It is their high reward that these anxieties are now crowned with success;—it is our higher duty to testify, as I am sure all present will gladly concur in doing, our gratitude to those who never desponded when others despaired, and who have succeeded because they resolved to succeed and deserved to succeed.

But these difficulties were not vanquished without great sacrifices. This canal is for its extent the most costly in this country, and with the exception perhaps of the frigate navigation on the Caledonian canal, in any country. The expense has exceeded $150,000 a mile: yet this expenditure, almost incredible as it seems, does not exceed the limits of a rigorous economy, since it will doubtless be repaid by its own productiveness.

This will appear when we regard the *advantages* of it.

I know of no two regions of country equally extensive and populous, possessing equal abundance of products and of wealth, that are separated by so slender a barrier as this now overcome. On the western side of the canal the eye looks down over the magnificence of that inland sea, the Chesapeake, into which so many rivers are bearing the products of Maryland and Virginia. On its side is planted our fair sister city, who with her characteristic and generous spirit of enterprise, is seeking in the remote west, the materials of new greatness; while further south have been just opened the avenues to the interior of North Carolina. On the other side is that genuine Pennsylvania river, the Susquehanna, which, while it occupies and fertilizes a great part of the state, invites and will hereafter tempt into it a great portion of what the fertility of the west and the industry of the north can supply to commerce. At the east end lie all the natural and accumulated wealth of the Delaware, separated by only a single obstruction, which I trust will be soon removed from the great commercial centre of the nation; and communicating thence by the Hudson and the lakes with Canada and all the avenues to the Mississippi and the Gulf of Mexico. The imagination is wearied with the immensity of this flight over the rich and populous countries which, almost touching at this point, yet widely separated, could approach each other, until now, only by the Atlantic. But henceforward this long and expensive and hazardous circuit of five hundred miles, will be replaced by a safe and cheap passage of fourteen miles and two or three hours. What may not be anticipated from this approximation? and how anxious will those who have been so long separated, hasten to exchange the exuberant productions of each other's industry.

Nor is it the least of the many sources of enjoyment on this occasion, that these benefits are obtained by no sacrifices of the rights or the interest of others. However personal feelings may sometimes mislead us, these improvements, in fact, injure no one. There is room enough in this great country of ours for all of us; and it would be a policy equally unjust and erroneous to repine at the advantages of our neighbors. The real wisdom even of selfishness is not to envy but to emulate the prosperity of others—to open all the avenues to industry, and then strive who shall be most industrious. Our local interest may be allowed to claim our earliest, but not our exclusive care; and even they will be best promoted by advancing the local interests of others. This work, therefore, while it benefits Philadelphia, will be useful to Baltimore and Norfolk, and ultimately to New York. In truth, every mile of the Rail-road from Baltimore westward, every section of a canal in the remotest part of the Union, is serviceable to all the Atlantic cities. They add to the movement and the mass of the nation's wealth and industry, they develop its resources, and the share of these advantages which each can obtain, is a fit subject of generous competition, not of querulous rivalry. Nor are the benefits of this canal confined to peace alone. We may not presume that this country will be again invaded, but should that event recur, we shall be spared the humliation of having our rivers crowded with enemies, and the communications of the country intercepted, while the Chesapeake is barred by the fortresses which adorn and defend it, and this canal, safe behind the barriers which protect it, and strong in the population which will line its borders, will be equally adapted to supply the materials of commerce or the implements of war.

But this great work, important as it is to our interests, inspires a much deeper interest when it is regarded not merely as an avenue of commerce, but as a great moral agent—not as a convenience for a transmission of products, however various and abundant, but for the transportation of men—of our own living, rational, moral countrymen—as the great channel for the movement of free-men and the diffusion of free institutions.

Unquestionably, the value of any social system depends mainly on the power it furnishes for social intercourse and improvement. While men are insulated at remote distances, their views are readily misconstrued, their interests misunderstood, and difference of opinion, at first easily explicable, ripen into causes of deep hostility. It is thus that national prejudices spring up for want of knowledge, and becomes hereditary for want of intercourse,—that to live on opposite sides of the same mountain or the same river is to become enemies by mere position, and that the inhabitants of the same country, governed by the same laws, and having the same permanent interests, find, or think they find, cause of alienation from their distant countrymen. All these disappear when men come to approach and to understand each other. Surprise at finding that they whom we considered our natural enemies, have really no hostile feeling, is succeeded by that fusion of opinions in which the asperities of contention are worn down—that interchange of sentiments which leaves respect even where it fails to produce conviction, till they who met in estrangement part in amity. These are benefits which no positive institution can confer, without the aids we this day enjoy. To us they are particularly valuable.

The wide extent of our country—the numerous sovereignties that divide it—the various governments which rather tend to localize the feelings; and the local interests which seem—yet only seem, to conflict with each other—all these might be causes of suspicion, of discontent, or division. But they are moulded into the elements of friendship and union, by this extraordinary facility of communication, which brings into immediate contact the remotest parts of the country, and blends them insensibly into one mass of intelligent and contented patriotism. It is thus that these steam vessels, from being merely instruments of trade, rise to the dignity of moral and political power. There is a peculiar fitness, too, that they should owe their origin to this country, for they almost belong to our political system.

The great problem of the American institutions was, whether a general government, with comparatively feeble means, could accomplish its purposes in so extensive an empire? Whether limited powers did not require a limited country, and whether the action of a political body, so distant, could carry a healthful circulation to extremities? That question is settled. It is no longer deemed necessary to impart a dangerous energy to the central power, in order to enable it to radiate to the circumference. But few things have contributed more to establish that consoling principle, than this great political institution—the steam boat, with its auxiliary canals—which measure space by a scale entirely new, and have totally subverted the old relations of time and distance.

For all the purposes of government, the assembling of representatives, the distribution of intelligence, the execution of the laws, the general defence, this country is probably smaller in extent, even with the addition of Louisiana and Florida, than it was at the formation of the Union. St. Louis and New Orleans, are as near to Washington now, as Portland and Savannah were to Philadelphia in 1776,—the communication between the states and individuals infinitely greater, and the Union is proportionably stronger, because this very intercourse furnishes at once the best motive and the best means for increasing our attachment to it.

No man, indeed, from any section of this country can see without admiration the busy crowds, the countless masses of free people constantly in movement over these great waters, and can mark the happy condition, the intellectual alertness, the decorous manners, and the mutual courtesy which prevail among them, without feeling proud that these are his countrymen. In the glow and animation of such a scene, the sternest prejudices are subdued, the most violent sectional animosities subside, and even the least relenting of all intolerance, the fanaticism of party is often convinced, or shamed, or amused out of its bigotry. These are the real ties which bind communities together—not the parchments of legislation, but the social sympathies. It was not ill said by an English statesman, in illustration of the power of habit over the forms of government, that if he could make the ballads, he did not care who made the laws. In this country he might have been tempted to add, that the legislation of the steamboats and canals was scarcely less efficient than that of the government, and that no temporary and delegated power of governing could so permanently affect the character of the nation, as the constant, free, and multiplied personal intercourse among those who make not the law, but the law-makers.

To these happy means of intercommunication, we have this day seen a most important addition. Let us cordially welcome it—welcome it for our interests, as a fresh channel of commerce—welcome it with pride, as a new achievement of the country's power—welcome it with our feelings, as another tie of affectionate sympathy with all our fellow citizens throughout this wide and prosperous empire. Allow me to embody these views and to make way for the better things from which I have too long detained you, by pledging you in this sentiment.—Success to the Chesapeake and Delaware Canal—a new source of prosperity, a new monument of power, and. above all, a new bond of union, to our country.

LADIES' DEPARTMENT.

THE PRIZE.—By Mrs. Sigourney.

Minerva a visit to Flora once paid,
When the flowers, in a body, their compliments made,
And charmed by their manners and elegant dyes,
She promised to give the fairest a prize;
Appointing a day when herself should preside,
And on their pretensions to beauty decide.
Then the Rose bridled up with a confident air,
As if she would say—*who with me shall compare?*
While the Lily, but newly come out as a bride,
Whispered long to her sisters, and laughed at such pride.
The Hyacinth studied her wardrobe with care,
Still puzzled to settle what colors to wear;
The Poppy, ashamed of her dull sleepy eyes,
Wore a new scarlet dress with a view to the prize;
While the Tulip came flaunting and waving her fan,
And turned up her nose at the Daffodil clan.
Then flocked the Anemones, fair to behold,
With the rich Polyanthos, in velvet and gold;
And the Jonquil with Cantelos laced very tight—
The hump at her back to conceal from the sight,
The buds, who were thought by their mothers too young,
Round their sisters' toilets discontentedly hung;
There was teasing, and dressing, and prinking enough;
The pretty Quill-Daisies each bought a new ruff,
The stately Carnations stood frizzing their hair,
And the tall London-Pride choosing feathers to wear;
The Pink, at her mirror, was ready to drop,
And the Snow-ball bought rouge at a milliner's shop;
While in the same square, at a shoe store so neat,
The Ladies' Slippers were pinching their feet.
Thrifty Lilac complained that her robe was not new,
But with turning and furbishing thought it might do;
While the queer Ragged-Lady, who passed for a poet,
Sat darning her hose, and let nobody know it;
And Monk's-Hood, who sometimes has furnished a sonnet,
Was padding and plaiting a beautiful bonnet.
The green house exotics in chariots went by,
For their delicate nerves feared each frown of the sky;
While from her low cottage of moss on the plain,
The Violet looked and admired the bright train,
Not dreaming to join in a circle so gay,
Nor supposing that she had a charm to display;
Beside a sick bed she preferred to attend,

Which down to the dust its pale forehead would bend.
But judge how this splendid conventicle stared,
When Minerva the prize to the Violet declared!
And added, though beauties and graces were there,
That *Modesty ever to her was most fair;*
Then loudly pronounced in the hearing of all,
That "the humble must rise, and the arrogant fall."

MISCELLANEOUS.

(From the Liverpool Times.)

CHARACTER OF MEN AND HORSES.

Whether or not horses have souls I pretend not to decide; but that they have good and evil passions, powers of reflection, and tempers, dispositions, habits and characters, corresponding to a remarkable degree with those of our own species, it requires small observation to perceive. When that bitter cynic Dean Swift, made his republic of hounhyms (horses) so much superior to the Yahoos (men,) he flattered the first for the sake of adding strength to his satire on the second. A more impartial observation of the two species will show that there is a wonderful agreement between them, and that there is scarcely a single variety of character or disposition in either race, which may not be paralleled by the other.

Dr. Spurzheim, as every body knows, is of opinion that the brains of the inferior animals contain the same organs of mind and feelings as those of men, with a very inferior developement, indeed of the intellectual organs, but still with the same structure of the cerebral mass and the same disposition of parts! I am no phrenologist, but thus far, no doubt, the Doctor is right—that there is the same general frame work of character in men and animals, a liability to the same passions and emotions, and a correspondence in the subordinate varieties of moral disposition. If we observed the different species of animals more attentively, we should find a closer resemblance between them and ourselves than we are aware of.

Horse dealers and hostlers are seldom metaphysicians; no more are shepherds; yet if the former would rightly judge of, and prudently treat their horses, and the latter would discreetly choose their sheep and dogs, and know how best to manage them, they must be attentive observers of character. And, in point of fact, many an hostler at a country inn, many a wagoner who drives his team by day and night, and many a shepherd on the Cheviots or the Grampians, understands the moral character of the animals he is conversant with, incomparably better than the most profound naturalist or metaphysician.

I seldom ride in a stage coach without learning the characters and dispositions of the animals by whom I am drawn; nor can I look at a troop of cavalry without perceiving by the very physiognomies of the horses, that they are of as many different tempers as the dragoons who bestride them. Do we not see amongst horses, as amongst men, the good natured and the mischievous, the proud and the humble, the docile and the stubborn, the generous and the vicious, the industrious and the idle, the sanguine and the phlegmatic, the bold and the timid, the stupid and the sagacious, the sulky and the incorrigible?

When I see the strong built, foaming, champing, and snorting charger, I compare him to Shakspeare's soldier—"sudden and quick in quarrel, seeking the bubble reputation, even in the cannon's mouth."

The Spanish horse trained for the Court, with a stiff, measured, pompous manner of pacing reminds me of a grand chamberlain, or a courtier dancing a minuet.

The high mettled hunter, swift and eager in the chase, who sticks at no impediment, and in the pride of his strength and beauty is almost unmanageable, I compare to the young blood of birth and fortune, who shines in the first circles of the fashionable world, and runs the headlong career of dissipation, till by some unlucky chance he is staked, or lamed, and is thenceforth considered fit only for the lowest offices.

The sleek and heavy carriage horse represents an overfed lazy alderman, who has starved his wits in swelling his paunch, and moves with a kind of unwieldly pompousness, which he takes for dignity.

The well bred saddle horse, equally fine and steady in his paces, gentle yet eager, with a just proportion of blood and bone, is your accomplished gentleman, who is at once the man of literature, of fashion and of business, of self-respect, benevolence and courtesy.

The hackney, who maintains a fair and regular pace, will carry lady or gentleman, tailor or dragoon, who prefers walking, but does not object to trot, and can on occasion gallop; who feeds well, sleeps well, and is accustomed to all kinds of treatment; is your respectable shop-keeper, industrious, attentive, complying, intelligent, moderately educated, with few high qualities and no bad ones.

A vicious, cruel brute, that kicks or worries every one that comes near him, and has killed more than one hostler, that is a glutton of work, strong mouthed and impetuous, but sulky as a mule when crossed, may stand for the man of unhappy temper, who beats his wife, oppresses his inferiors, quarrels with his neighbors, is implacable and relentless, who is an excellent workman, but a very fiend in disposition, and sometimes by his ungovernable passions brings himself to an untimely end.

The snug, sleek nag is your bachelor *petit maitre;* the tricksome palfrey is your dressy coquet. The husbandry horse is like the farmer's man. The cart horse is your common labourer, ill trained, coarsely fed, overwrought, often wantonly oppressed, hardy and strong, but at length broken down with labour. The mill horse is the galley slave. The stage coach horse is the editor of a daily paper, run off his legs with ceaseless toil and stimulus. The Arabian horse, the Cossack, the Suffolk, the Shetland, and the Thessalian horses represent the natives of the desert, the steppes, the fat plains of England, the barren isles of the north, and the fertile vales of Thessaly.

In these illustrations my reader will remark that I include character as well as condition; and though I have mixed up character and condition together, yet this is only in accordance with the fact observed in both horse and human societies, that characters are in a very considerable degree formed by circumstances. And this brings me to another point of resemblance, which it is practically important to notice.

Horses, like men, are greatly influenced by the treatment they receive, and especially by their education. To those who are curious in horses I would say—choose the breaker for your colt, as you choose the schoolmaster for your son. Let him be skilful, judicious, discriminating, studious of character, mild, firm, patient, and assiduous. A tyrannical and cruel trainer will break the youthful spirit, or mar it for life. A timid and indolent one will leave his work incomplete. Most of the vices of horses and men are traceable to their education and injudicious treatment. One kind of training is required for the racer, another for the roadster, and another for the coach horse; a full blood must be differently treated from a horse of the cart breed; the same bad consequences would result from confounding the different modes of treatment in the cases of horses, that would attend a similar error in the education of boys of various talents, dispositions and destinies. Nor is it in youth only that judicious treatment is necessary; it is important in every stage of life, in order that the most may be made of the natural power of the animal. Kind and generous treatment will generally go farthest; feed your horse well, though not too high; give him enough to do, without overworking him; never fling him unnecessarily or passionately: allow him a certain kind or degree of independence; you will yourself be the gainer by it; for it will leave his natural energies to their free operation, and will enable him to render you better service.

One more observation, and I shall conclude.—As great men are often formed for great occasions, great horses have been prepared for great men: Alexander had his Bucephalus, and Don Quixotte his matchless Rosinante.

Speculations upon the future are oftentimes aided by a comparison of the present with the past—Under this impression, I enclose to you a transcript from a Domestic Expense Book, kept by a young and newly married houskeeper, in the year 1769, and for the benefit of such as may not be familiar with the present state of the New York market, have also annexed what my daily experience has led me to coincide as the current prices of the articles selected. To the inquisitive and curious it may afford a trifling gratification, and to the speculative reader, suggests the inquiry how it happens, that after a lapse of sixty years, and a change and increase of population, from twenty thousand, [census of 1771, 21,806] to nearly two hundred thousand inhabitants, the price of some articles should be higher, some lower, and some the same that they then were.
H.

	1769.	1829.
Hyson Tea, per lb.	$3 25	$1 25
Bohea,	58	43
Coffee,	25	12½
Chocolate,	13	15
Loaf Sugar,	15	18
Muscovado, per 7 lb.	55	68
Flour, do. do.	15	12½
Butter, per lb.	12½	15
Mustard,	37	75
Citron,	37	75
Salad Oil, per betty,	47	25
Anchovies, per bottle,	31	31
Turkey,	50	1 00
Goose,	25	62
Ducks, per pair,	31	62
Oysters, per 100,	31	1 50
Mould Candles, per lb.	12½	12½
Jamaica Spirits. per gal.	75	1 50
Holland Gin,	1 25	1 25
Cider, per barrel,	2 50	2 00
Ale,	3 12	5 00
Black Fish, per lb.	5	5
Hickory Wood, per load,	88	2 50
Oak, do.	53	1 50
Carting,	12½	25
Oats, per bushel,	26	38
Madeira Wine, per pipe,	100 00	260 00
Sherry,	55 00	350 00

[*N. Y. Com. Adv.*

If any thing were wanting to evince the rapid growth of our western region, the following description that has been handed us of a hotel at Ithaca, would afford ample evidence. Simeon De Witt, Esq we believe, first marked out the site of the village, and is still a principal proprietor. It was then a wilderness—it now exhibits the busy hum, "pride, pomp and circumstance" of a city. Its only architecture was then the rude and comfortless wigwam of the savage—it is now adorned with structures that will minister to every caprice of luxury, and almost vie in magnificence with the splendid saloons on the banks of the Teflis.

The Clinton House, says our informant, now finishing in the village of Ithaca, will be ready for the reception of company in the course of a few weeks. Its spacious and convenient arrangements will be surpassed by few if any in the state; being in front on Cayuga street, 123 feet, five stories high, including the basement and attics. Its height from the foundation to the circular walk on the cupola, is 85 feet, affording at once a beautiful prospect of the village, and of the surrounding country. When finished, it will contain 151 rooms, including several extensive halls, one of which is 120 feet long, a dining room 96 feet long, an assembly room 60 by 27 feet, and several rooms calculated for cold and warm baths. The front has a portico 52 feet in length, supported by six Ionic columns, which are calculated for marbling; and the finish throughout is of the best workmanship, and in the most modern style.

[*N. Y. Herald.*

PACKAGE OF PAPERS.

The senior editor of the Register takes to himself much of the credit, (if any is due,) for the great improvement made within twenty years past, in the packing of newspapers. He started, at once, by putting them in strong wrappers and parcelling the packages into *states*—so that when a bundle arrives at the distributing office of a state, the interior packages are generally as sound as when they first left the office. The post master at McDonough, Geo. politely noticing the straw paper wrappers, says—

"This office is 990 miles south of Washington city, and your Register comes to it enveloped in that paper, without even the corners rubbed through. Last spring the mail got washed, and all the packages had to be sunned, but those that were wrapped in the straw paper were not the least injured, nor could you have told that they had been in the water."

We have also a letter from the post master at Alexandria, Lou. which says—"A great deal of noise has been made within the last eighteen months, about papers lost or mislaid. The charges against the post masters are unjust, I believe. The remote situation of this office might be expected to cause many miscarriages of newspapers—but since May, 1827, not more than one or two numbers of *your* paper have failed. The reason is that you do justice in packing them." He then goes on to describe the difficulty and trouble which ensues because of careless and insufficient packing, and recommends our manner, with the use of straw paper for wrappers.

☞ As there are many persons "in these our days" who think it unreasonable to expect that an editor should tell the truth, unless politically or personally interested—we shall take the liberty to add, that, very generally, we are sure that the complaints against the post offices are unjust, and that we have no private interest in the manufacture or consumption of straw paper, except in its reduced cost to ourselves and the better accommodation of our readers. There are, however, some parts of the country, and within a short distance of the seat of government too, that, if papers were wrapped in *sheet iron* and directed in letters of *adamant*, they would fail of their destination, through the multitude of little post offices, and the indifference of those who have charge of them. We have, perhaps, from first to last, lost 100 subscribers in Virginia, for this assigned cause; and been compelled in numerous cases, to give up the hope of supplying gentlemen who wished to receive our paper. But complants of this kind are now not more frequent than formerly. We also admit that, with all our care, we ourselves make some few errors or omissions—but many have received our paper ten years without requiring *one* missing number to complete their files. [*Niles' Register.*

EPIGRAM.

Of old, to debtors that *insolvent* died,
Egypt the rights of *sepulture* denied;
A different trade enlighten'd Christians drive,
And charitably *bury them alive!*

THE FARMER.

Baltimore, Friday, December 4, 1829.

☞ The Next Legislature.—Though it is well known that we endeavour to discharge our duty to the public, eschewing in this journal all interference in the party politics of the day; yet in this last feeling we may have too far abstained from what may perhaps be intelligibly called, *agricultural politics.* By that we mean the measures within the province of the Legislature of *the State*, which have a direct bearing, not on the advancement of any particular man or faction, but on the *character of the State and the permanent interests of those who have some property at stake in the commonwealth.*

We have determined, therefore, to be more mindful in future of the proceedings of our Legislature; for *it ought* to exercise, as the constitution always intended it should, the chief control over the *domestic affairs*, and the rights of person and property within the state.

We shall take occasion from time to time, exercising the freedom of a public journalist, to intimate such measures as we believe would benefit the farmer and planter, regardless of prejudices whether of local or of factious origin. But, alas! when we consider the steady progress of the state, in almost all that indicates decline of public character, and individual prosperity, there would seem to be some organic defect in our systems, or some moral incubus weighing on the bosom of the state, that baffles all reasoning and defies all remedy. Where can we turn our contemplation, where can we cast our regards, without being struck by melancholy proofs of deterioration in circumstances and character? by character we mean education, intelligence, manners, public spirit, all the adornments of the gentleman, and the energy and knowledge of public history and of elementary rights, which distinguished the patriot of our revolutionary epoch, and the first few years that succeeded?

By circumstances we understand the means of living free from debt, with a fortune adequate to keep houses in good order, farms in a course of improvement, children well dressed, and in the way of intellectual culture, with the granary and the meathouse, and the dairy and the cellar, well stored, and something in the cupboard, more cheering than cold water, to refresh the weary traveller, and welcome the worthy friend. Take your horse and ride for a day through the high way, or the by way, and what do you see on the road side? not the new house, nor even the new shingle on the old one to break off the peltings of the pitiless storm!—Where are the new fences, and plantations of fruit trees, and gardens, and lands, drained and irrigated, and rich dairies, and people well clad, riding on good horses, well caparisoned? where the sound of music, the cheerful countenance, and the jocund heart, the country dancing schools, and innocent frolicks; natural fruits of a prosperous, and unerring signs of a happy population, such as even young men now living may remember to have seen in every county in the state? Alas! all is decay and ruin, and gloom and despondency.

"Even those healthful sports that grac'd the peaceful scene,
Liv'd in each look, and brighten'd all the green;
These, far departing, seek a kinder shore,
And rural mirth and manners are no more."

A population of educated, spirited, intelligent, reasoning, principled, and honourable *freemen*, is fast dwindling into an uneducated, spiritless, uninformed, *populace;* our tide water counties if not retrograding, are stationary in population; the many are in debt to the few; children are reared without education, classical or scientific; and however true it be, that "man made the town, and God made the country," yet the *country* is a picture of dilapidation and despair, and the means of that refinement which was once the well grounded boast of the "gentleman farmer" of Maryland, have departed without any remaining benefit, but the "benefit of the act."

That such is the condition to which we have been gradually descending, it were vain to deny. The truth is not always; but is it never to be told? If indeed the disorder be without a remedy, then it were better that the patient should not be admonished of his danger; let him sink in the confidence of his strength, and expire in the fatuous persuasion of a healthful and prolonged existence.

☞ Virginia Brocoli.—Whether it be that their pride does not run in that way, or that they would modestly hide their lights, or how it is, we know not, but our Virginia friends so rarely boast of excellence in their horticultural or agricultural productions that we are the more pleased to make mention of a *purple Brocoli*, produce of the garden of Mr. T. Taylor, of Richmond, Virginia, which, a few days since, says our correspondent, weighed 8¼ pounds. "The circumference measures three feet three inches, and across the top it is 19½, the flower is a compact mass," and that was somewhat smaller than one which he had previously sent to a neighbour.

☞ Mr. Randolph.—Extracts from the letters of two much valued friends in Richmond, men of sound judgment and cultivated taste. One says:—

"I sincerely regret that your official avocations compelled you to leave Richmond before you had fully explored our localities, or become better acquainted with our society, both male and female, and above all before the debates in our convention assumed their full interest. Mr. Randolph, for the first time during our convention, made a speech some eight or ten days ago, which rivetted the attention of the audience for two hours, although he rose just before the usual time of adjournment. As a specimen of oratory, the speech greatly exceeded any thing I ever before witnessed, and the anxiety to hear him again surpasses all description."

The other correspondent says as much in yet fewer words.

"Randolph's speech on Saturday was the most splendid one I ever heard—I never expect to hear its like again."

☞ The writer of a series of well written letters bearing the post-mark of Georgetown, D. C. is respectfully informed that No. 1, of the series has not been received, and that the letters, though entertaining and of good moral tendency, do not fall under any of the heads that belong to this paper—devoted as it is, almost exclusively, to practice agriculture, domestic economy, horticulture, and natural history. These letters would better suit some literary and moral periodical, and will be retained to take any direction which may be given by their intelligent author.

☞ We have received "A Price Catalogue of the celebrated Chilton Breeding Stock, which was sold by auction, at Chilton, in the county of Durham, England, on Monday, 31st of August, and Tuesday, 1st of September, 1829," which we shall publish in our next, with some remarks prepared to accompany it, under the expectation that we might have inserted them in this number.

☞ Large Radish.—We have now in our office a radish weighing *ten pounds and a half.* It is 12¼ inches long, and 20 inches in circumference in the largest place, which is within a couple of inches of the lower end. It appears to be of the common scarlet kind, and resembles a large fat goose trussed for the spit.

☞ Once again and for all, we must repeat that in regard to machines, grain, &c. we always publish *all* the information we have, and after that, all communications must be addressed to the *inventors, venders, or agents*—time is too precious to employ it in conducting the correspondence of other people. With all the diligence we can use we find ourselves unable to discharge arrearages with our own correspondents in cases that mutually and properly concern us. In the case of the New York threshing machine, spoken of in vol. 11, No. 32, our readers are respectfully referred to Sinclair and Moore, machine makers, Baltimore, to be addressed by letters post paid.

THE HORSE ECLIPSE.

Mr. Skinner: *Harrison Co. Ky. Sept.* 15, 1829.

In the American Farmer, vol. 11, page 61, you published an extract of my letter, and a certificate of L. Sherly, of the performances of a horse called Eclipse, and on page 101, he replies, and says, "the certificate alluded to has been altered to suit some impostor's own purposes." I did not question Mr. Sherly's certificate myself, but others did, which induced me to request the pedigree and performances fully confirmed and authenticated by some person or persons, whose authority could not be doubted. When I saw Mr. Sherly's reply, I intended ere this to have had the matter fully investigated, and the impostor if possible detected, but it has not been convenient for me to attend to it. I therefore have concluded barely to send you a copy of the certificates of Wm. Bowman of Lexington, and Alexander Givens of this county. It appears to me from those certificates, that the imposition now rests between Messrs. Sherly and Bowman; however, they can answer for themselves, and inform the public if neither of them, who then is.

Yours, respectfully, Wm. Lamme.

I do hereby certify, that in 1826, I purchased a blind bay horse of Wm. Bowman, of Lexington, as agent of Lewis Sherly, and in March 1826, Mr. Bowman gave me his certificate of the performances of said horse as received verbally from Mr. Sherly. And in 1827, Mr. Bowman handed a certificate signed Lewis Sherly, which he said he had received enclosed in a letter to him by L. Sherly, a copy of which is published in the American Farmer, vol. 11, No. 8, page 61. Alexander Givens.

August 20, 1829.

Latest Foreign News.

Intelligence one day later than that contained in our last has been received at New York from England. There is nothing of much interest to our readers in the papers received. A private letter asserts, that the manufacturing districts of England are in a state of extreme distress, notwithstanding the statements of ministerial papers to the contrary. An extensive failure had occurred at York,—the house of Messrs. Armstrong. It is mentioned as probable, that the Emperor of Russia will modify the treaty of peace with Turkey, at the suggestion of other powers, so as to make it more satisfactory to his allies, and probably more capable of execution by Turkey. Accounts from Genoa mention that on the night of the 7th of October, a severe storm was experienced there, which lasted from 11 o'clock at night until 4 o'clock the next morning, and that great apprehensions were entertained for the safety of the numerous shipping in the port. The difficulties of the Bank of Lisbon are said to have been caused by a requisition made on it by Don Miguel, who wanted money to raise troops. The country is represented as being involved in much pecuniary distress, and many owners of property are unable to derive sufficient income from their estates to pay the taxes imposed on them.

Liverpool Markets, *Oct.* 24.

Since Tuesday we have received a moderate supply of oats and of all other kinds of grain, flour and oatmeal. The imports are very small. Yesterday a good demand sprang up for new wheat at Tuesday's prices, and to-day an advance of 2d per bushel was obtained; the sales have however only been to a limited extent, and in old there had scarcely been any sales effected. Barley rather cheaper. Oats are at moderate request, and flour and oatmeal dull sale; without any alteration in prices.

Cotton, Oct. 24.—The sales of cotton this day, are estimated at 1500 bags.

A letter from Liverpool, dated 24th ult. says—"the crop of cloverseed is understood to be deficient, and 110 casks American have been sold at 59s. per cwt."

London Markets, *Oct.* 23.

Corn Exchange.—The supplies of grain this week are not considerable, but there is plenty of flour. The trade for wheat continues very slack, and Monday's terms are with difficulty maintained.

Prices Current in Boston, November 27.

Apples, best, bbl. 1.75 a 2.25. *Beans*, white, bushel 1.00 a 1.25. *Beef*, mess, bbl. 9.00 a—— ; cargo No. 1, 7.50 a ——; No. 2, 6.50 a —— *Butter*, inspected, No. 1, new, lb. .13 a .15. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 6.00 a 6.25; Genesee, 6.00 a 6.12; Rye, best, 3.75 a 4.00. *Grain*, Corn, bu. .62 a 63; Rye, .75 a .78; Barley .67; Oats .40 a .45. *Hogs'-Lard*, 1st sort, new, lb. .8 a 8½. *Pork*, clear, bbl, 15 a 16; Navy, mess, 12.00 a 12.50; Cargo, No. 1. 12.00 a 12.50. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel -----. *Wool*, Merino, full blood, washed, .38 a .40; do. do. unwashed, .20 a .25; do. three-fourths, washed, .30 *a* .33, do. half blood, .28 *a* .30; do. quarter, washed, .25 *a* .26; Native, washed .25 a .26; Pulled, Lambs', 1st sort, .35 a 36; do. 2d sort, .26 a .27; do. spinning, 1st sort, 30 a .32.

Prices Current in New York, November 28.

Bees-wax, yellow .23 a .—. *Cotton*, New Orleans .9½ a .12½; Upland, .8½ a .11; Alabama, .8½ a 11. *Cotton Bagging*, Hemp yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask 9.75 a 10.00; clean—; *Flour*, N. York, bbl. 5.37½ a 5.50; Canal 5.37½ a 5.62½; Balt. Howard st. 5.87½ a 6; Richmond city mills, 5.87½; country,— a 5.37½; Alexand'a, 5.37½ a 5.75; Fredericksburg 5.25 a 5.37½; Petersburg, 5.37½ a —— Rye Flour, 3.50 a 3.75; Indian Meal, per bbl. 2.75 a ——; per hhd 13.50 a ——. *Grain*, Wheat, Vir. 1.05 a 1.08; N. Caro. —- a —-; Rye, North, 65 a 67; Corn, Yel. Nor. .48 a .58; Barley, .61 a —-; Oats, South and North, .30 a .37; Peas, white, dry 7 bu.——; Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 7.75 a 8; prime 5.37½ a 5.75; cargo —— a 4.25; Butter, N. York, .12 a .15; shipping, .8 a 11; Lard, .5 a .6; Pork, mess 11.00 a 11.50; prime 8. a 9.50; cargo—— a —-; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* .2.50 a .3. *Tobacco*, Virginia .4½ a .8 a .7; Kentucky, .4 a .6 a .7.

Prices Current in Philadelphia, December 1.

Bees-wax, yellow —. a .23; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10 a 10.50, prime 9 a 9.50, cargo 7; *Butter*, No 1, .8½ a —-, No. 2, 6. a—-; *Cotton*, New Orleans .9½ a .13, Upland 9. a .10, Tennessee 9. a .10, Alabama 9. a 10; *Feathers*, South. .34 a .36, West. .33 a .34; *Flax* .7½ a .8. *Flour*, sup. 5.25; fine, 5.00 a —; Rye 3.62½ a 3.75; Corn meal, hds. 12.25 a ——, bls. —— a 2.25; *Flaxseed*, cask —— a ; bu. 1.15 a 1.20; *Grain*, Wheat 1.02 a 1.05; Rye .50 a .53, Corn l. c. white, .44 a .—, l. c. yellow, .44 a .45, u. c. round, .50 a .—; Oats .30 a .36, Barley, Pa. .50 a .55; do. East. .66 a .67; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .6 a .7; *Oil*, linseed, 68 *a* 69; *Pork*, mess, 12.00 a ——, prime 11.50 a 12; cargo 10.00 a 10.25; *Rice*, 2.50 a 3.25; *Tobacco*, Kentucky .5 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .18 a .22, half blood .26 a .—; three quarters blood .28 a .32, full blood 28 a .32; unwashed, generally 6 cents less, according to quality.

ALMANAC.

1829. December.	Sun. Rises.	Sun. Sets.	Length of days.	Moon Sets.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 5	7 19	4 41	9 22	1 26
Sunday,........ 6	7 20	4 40	9 20	2 34
Monday,....... 7	7 20	4 40	9 20	3 44
Tuesday,...... 8	7 21	4 39	9 18	4 51
Wednesday,.. 9	7 21	4 39	9 18	5 57
Thursday,..... 10	7 21	4 39	9 18	rises.
Friday,......... 11	7 22	4 38	9 16	6 13

Moon—Full Moon, 10th 8 h. 31 m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—A small reduction will be noticed in the prices of flour and grain. Howard street flour is selling from wagons at $5. *Live Stock.*—Beef on the hoof continues the same as at our last.

Tobacco.--Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12.00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4 00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week comprise 274 hogsheads Maryland, and 14 hogsheads Ohio.—Total 288 hhds.

Flour—best white wheat family, $6.25 *a* 6.75—super. Howard st. 5.25 *a* —; city mills, 4.87½ *a* 5.25; Susquehanna, —. Corn Meal, bbl. 2.50 *a* 2.62½—Grain, best red wheat, .95 *a* .98; best white do. 1.05 *a* 1.10; ordinary to good, .90 *a*. —-Corn, old white, .42 *a* .43; yel. .42 *a* .43; new, .37—Rye, .46 *a* .47—Oats, .27 *a* .—— Beans, 1.10 *a* ——Peas, .65 *a* ——Clover seed, 3.75 *a* 4 —-Timothy, — 2.50--Orchard Grass, 2.00 ——Herd's, —- *a* 1.50—Lucerne .37½ *a* .50 lb.—Barley, .50 *a* .55—Flaxseed, 1.20—Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12 —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .23½ *a* .—; in bbls. .25 *a* 26—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.—Hemp, Russia, ton, $220 *a* 225; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, — *a* 6.25; No. 2, 5.75 *a* —— No. 3, 4.00 *a* ———Bacon, hams, Balt. cured, .8 *a* .9½—Feathers, .33 *a* .——Plaster Paris, cargo price per ton, 4.62, ground, 1.25 bbl.—Prime Beef on the hoof, 4.00 *a* 5.00. —Pork, 4.50—Pine Wood, by the vessel load, 2.25 to 2.50; by the single cord, 2.75—Oak Wood, by the vessel load, 3.25 to 3.75—Hickory, 4.50.

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AGRICULTURE.

"It is principally as manufactures and commerce tend to increase the value of agricultural productions, and to extend their application to the wants and comforts of society, that they deserve the fostering care of government." [*President Jackson's Message.*

[The just sentiment so well expressed by the veteran Patriot at the head of the government, is appropriately run out and well elaborated, if we may so say, in the following essay:]

ON THE IMPORTANCE OF AGRICULTURE TO A NATION.

As the abundance of capital is the principal source of employment, and as agriculture tends more than any other branch of business to increase the *general* capital of a country, it must in the same proportion more effectually promote the employment of a people. To prove that it does possess this tendency, I may here cite an authority to which the most eminent political economists bow with deference. Adam Smith says—"No equal capital puts into motion a greater quantity of *productive* labour than that of the farmer. Not only his labouring servants, but his labouring cattle, are productive labourers. In agriculture too, nature labours along with man; and though her labour costs no expense, its produce has its value, as well as that of the most expensive workmen. The most important operations of agriculture seem intended not so much to increase, though they do that too, as to direct the fertility of nature towards the production of plants most profitable to man. A field overgrown with briars and brambles may frequently produce as great a quantity of vegetables as the best cultivated vineyard or corn field. Planting and tillage frequently regulate, more than they animate, the active fertility of nature; and after all their labour, a great part of the work always remains to be done by her. The labourers and labouring cattle, therefore, employed in agriculture, not only occasion, like the workmen in manufactures, the reproduction of a value equal to their own consumption, or to the capital which employs them, together with its own profits, but of a much greater value." A little farther on, the same lucid writer remarks, that "the capital employed in agriculture not only puts into motion a greater quantity of productive labour than any equal capital employed in manufactures, but in proportion, too, to the quantity of productive labour it employs, it adds a much greater value to the annual produce of the land and labour of the country, to the real wealth and revenue of its inhabitants. Of all the ways in which a capital can be employed, it is *by far the most advantageous* to society."

The numbers employed in agriculture, in such large countries as France and England, have by some writers been computed at half, by others at a third, by none less than a fourth, of the whole inhabitants of the country.[*] However calculations may differ, those occupied in the culture of the earth, at any rate, considerably exceed in number those employed in any other species of manual labour, and, most probably, those engaged in every other kind of employment put together. This very circumstance of its affording immediate occupation to so considerable a portion of the population, should entitle agriculture to the most marked encouragement, and is an additional reason why it is to be considered the greatest and most important source of labour and employment.

Besides the multitudes to whom the culture of the earth affords immediate employment, it indirectly gives occupation to many more, in a greater degree, than any other branch of labour whatever; for, inasmuch as it is the most conducive to long life (and we may add,—though at the present day regarded as an evil,—to population also,) it necessarily occasions the greatest demand for the artificial necessaries of existence, and thereby indirectly employs more artizans and manufacturers than any other.

Agriculture is not only the great source of employment to a people, but when carried to perfection, secures that employment more effectually than any other occupation whatever. Manufactures and commerce are not necessarily confined to any country, however vigorous and flourishing they may be at any one period. Taxes, oppression, civil commotions, foreign war, and a thousand other causes, may check, discourage, or totally annihilate them, and deprive its natives of those sources of employment which once engaged multitudes. To this, ample testimony is borne by those once great commercial states, which at present exists only in name. When capital, on the contrary, is laid out in highly cultivating the earth, it not only affords extensive employment to the present, but secures it to future generations. Of both these circumstances, one country in Europe affords a striking demonstration; I allude to the Netherlands; a brief review of the ancient and present state of which will prove the justice of the observation, and the general utility of agriculture to a state.

The Netherlands in general, and the province of Flanders in particular, though now-cultivated and improved to the utmost, afforded at one period a very different prospect. The vast forest of Ardennes overspread and rendered useless almost its whole extent. The Counts of Flanders were, on this account, styled the Foresters of Flanders. The country was, beside, covered with marshes and stagnant waters. The Scheld, unrestrained by the hand of man, overflowed its level banks, deluged the neighbouring plains, and rendered them at once both desolate and unhealthy. Agriculture has effected the wonderful change now observable: introduced first by the monks, and adopted afterwards by the peasants, it made rapid advances to perfection, in proportion as the latter were relieved from the feodal oppression, and secured from the rapacity of their lords. The manufactories afterwards established in the cities of Flanders, afforded additional encouragement to the cultivation of the country. They doubly promoted its progress to perfection: the husbandman, secure of a ready market for his productions, in the rising consumption of the crowded towns, was invited to increase his exertions; and, by augmenting his capital, was enabled more effectually to execute the necessary improvements in his farm. The adventurous merchant, not finding sufficient scope for the employment of his wealth in commerce, or allured by the natural attractions of the country, exerted the same spirit in cultivation which he had previously done in trade, and, by securing his riches in the soil, rendered their benefits permanent to future generations. The princes of Flanders afforded peculiar encouragement to these exertions, and judiciously bestowed premiums on those who excelled in this the most useful of all occupations. The effects of so fortunate a combination of circumstances soon became visible. As early as the twelfth century, the forests of Flanders were extirpated; canals were formed, which at once drained the country, and opened a communication between its most distant districts. The Scheld, restrained to its proper bed by the necessary precautions, no longer desolated the country it should enrich; the soil was laid open to the beneficial influence of the atmosphere, and Flanders became the most fertile and cultivated portion of Europe.

A variety of well-known causes, not here necessary to be enumerated, have long since deprived those countries of the commerce which they once possessed; their agriculture, however, feels no decay, and still affords employment to the numerous inhabitants. The manufactures of Louvain have disappeared; the trade of Antwerp, comparatively speaking, may be said to be extinct; but the fields of Flanders retain their fertility; their population is augmented almost beyond parallel; and they afford an irrefragable proof that *Agriculture is the most solid basis of national prosperity.* Even the ravages of war are not able to deprive agriculture of the firm possession of the soil which it once obtains. In the sixteenth century—a period the most unprosperous to these provinces—when all their other arts declined or disappeared, the cultivation of the earth retained its native vigour. Their husbandry, at the present day, it is well known, is scarcely to be equalled in any part of Europe; their population surpassed by none; their inhabitants feel no want of employment; and their comfortable habitations, wholesome food, and the decent competence they enjoy, express, in strong terms, to the delighted traveller, that each shares the plenty which pervades the fields.

The present state of Lombardy and Tuscany would lead us to similar conclusions. Though the misfortunes of Italy, in the fifteenth and sixteenth centuries, considerably injured the commerce and manufactures of their cities, the surrounding country is still one of the most cultivated in Europe.

If any additional proof were required, that agriculture is the great and secure source of prosperity and employment to the people, and that which every government should principally encourage, let the opinion of that celebrated and learned French writer, the ingenious Raynal, be heard: "Sans la culture des terres, tout commerce est précaire; parce qu'il manque des premiers fonds, qui sont les productions de la nature. Les nations qui ne sont que maritimes ou commerçantes, ont bien les fruits de commerce; mais l'arbre en appartient aux peuples agricoles. L'Agriculture est donc la première, et la véritable richesse d'un état. Tout en effet dépend et résulte de la culture des terres. Elle fait la force intérieure des états. Elle y attire les richesses du dehors. Toute puissance qui vient d'ailleurs que de la terre, est artificielle et précaire, soit dans la physique, soit dans le moral. L'industrie et le commerce qui ne s'exercent pas en premier lieu sur l'agriculture d'un pays, sont au pouvoir des nations étrangères, qui peuvent ou les disputer par l'émulation, ou les ôter par l'envie; soit en établissant la même industrie chez elles, soit en supprimant l'exportation de leurs matières en œuvre. Mais un état bien défriché, bien cultivé, produit les hommes par les fruits de la terre, et les richesses par les hommes. Ce ne sont pas les dents du dragon qu'il sème pour enfanter les soldats qui se détruisent; c'est le lait de Junon, qui peuple le ciel d'une multitude innombrable d'étoiles."

Let it not be imagined, however, from what has been advanced, that I desire to see manufactures discouraged. On the contrary it is evident that a number of manufacturers afford many and considerable encouragements to agriculture, and useful employment to many of the people. They raise a near and ready market for the surplus produce of the husbandman's labour. They stimulate him to industry and employment, by presenting various articles of convenience or ornament to his purchase; and the capital acquired by them is often ultimately laid out in the cultivation of the earth. Manufactures should, on these and many other accounts, ever claim peculiar attention from the legislature, and should meet with every assistance consistent with the interests of those members of the community not engaged in them, and who always form the majority of a great nation.

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[*] Sir John Sinclair estimates this country to contain 67,000,000 of acres; of which, deducting for houses, roads, rivers, lakes, and other parts incapable of cultivation, 7,000,000, there remain, for productive purposes, 60,000,000 of acres; of these 60,000,000 of acres, only 5,000,000 are employed in raising grain, 25,000,000 are in pasturage, and no less than 30,000,000 are either entirely waste, or but imperfectly cultivated.

The positions, therefore, sought to be established are, that of all the different branches of labour, agriculture is that which affords the most productive, secure, and extensive employment to the people; that commerce and manufactures should be considered as subservient to its interests, and that they should not be encouraged at the expense and to the detriment of those engaged in its pursuits. A sensible writer of the last century gives us some very judicious remarks upon this question, and with which I cannot perhaps more appropriately conclude:—"Agriculture and manufactures," says he, "are twins, and must always wax or wane with each other. It ought therefore, to be the object both of the landed and trading interests, to encourage agriculture, taken in the most extensive sense, as the mother and support of arts, as the great and permanent principle of our domestic policy, on which our attention must be invariably fixed, if we mean to preserve that felicity, to which the beneficence of Providence has given us an incontestible, and, if we are not wanting to ourselves, and indefeasible title."

Philio Agricolæ.

Sept. 16, 1829. [*Brit. Far. Mag.*

(From Loudon's Gardener's Magazine.)

On the Natural Succession of Forest Trees in North America.

Sir,—In vol. iii. p. 351, an extract is given from Evelyn's letter to Sir John Aubrey, stating that beech trees grew in place of oaks which had been cut down by his grandfather, and that birch succeeded beech which his brother had extirpated. In the United States, the spontaneous succession of timber, of a different kind from that cut down, is well known. In the *Memoirs of the Philadelphia Society for promoting Agriculture*, vol, i., there are several papers on this subject, by the President, the late Richard Peters; by Dr. Mease; by Mr. John Adlum, who had long been a surveyor in the new settlements in Pennsylvania; by Dr. Caldwell, in reference to the fact in North Carolina, in Massachusetts, and in New Jersey; and a confirmation of it in the last mentioned state, by Mr. Thomas F. Leaming. In the third volume, Mr. Isaac Wayne, son of the American general, the late A. Wayne, also gives some interesting details respecting the appearance of timber trees, of a kind different from those which formerly covered the ground in his vicinity, and which had been cut down by an American army, when encamped there in the autumn and winter of the year 1777 and spring of the following year. One of the above writers refers to the relation of Mr. Hearne, (*Journey to the Northern Ocean*, p. 452,) for the fact of strawberries growing up wild near Churchill river, and in the interior parts of the country, particularly in such places as have been formerly set on fire; and for that of hips and raspberry bushes shooting up in great numbers, in burnt places, where nothing of the kind had ever been seen before. Cartwright is also quoted in proof of the point. He observes that, "if through carelessness the old spruce woods are burnt, or by lightning, Indian tea first comes up, currants follow, and after them birch." (*Journal of Trans. at Labrador*, vol. iii. p. 225.) Nine years after the publication of this last work, M'Kenzie stated that, land covered with spruce pine and white birch, when laid waste by fire, produced nothing but poplars:"* and yet the Edinburgh reviewer of his work very indelicately declared his disbelief in the relation. Recently we have additional testimony on this subject. In the manual on the culture of silk, prepared in consequence of a resolution of the House of Representatives of the American Congress, and published in the session of 1828, it is stated, (p. 38,) that "in Tennessee, when a native forest is cut down, if the land be enclosed, a growth of red mulberry tree, soon takes place."—All these statements do not admit a doubt to be entertained of the natural succession of forest timber; the fact is moreover familiar to every man who has lived in the country, and to almost every intelligent person in North America. I regret that the enterprising voyager did not live to shame the northern critic for his rudeness, and to enjoy the satisfaction of seeing his own testimony of a curious and interesting fact in natural history confirmed by others.

J. M.

Philadelphia, May 1, 1829.

Extract from an article "*On the Necessity and Advantage of inquiring scientifically into the Practices and Results of Horticulture. By* Joseph Hayward, Esq ," *published in Loudon's Gardener's Magazine, for August*, 1829.

"It is known, that when animal and vegetable substances are deprived of life, and left to nature, a spontaneous decomposition takes place, by what is called fermentation; and it appears, that, during the process of the putrefactive fermentation, carbon is liberated in the greatest quantity, and reduced to a state that is best appropriated as food for plants; and that at the same time, a part of the carbon, which is liberated by this process, unites to oxygen, and forms carbonic acid gas; and a part also unites with hydrogen, and forms carburetted hydrogen gas; and when in this state the carbon is dissipated and lost to the plants.--To prevent this loss, and, as they say, at the same time to facilitate putrefaction, the chemists recommend the addition of quick lime to the fermenting mass; but in this, I conceive, they are under a mistake; for, the formation of carburetted hydrogen gas being an inevitable consequence of putrefaction, any substance that will prevent such formation must be considered as obstructing the putrefactive fermentation. Quick lime, added to a fermenting substance, will no doubt hasten its dissolution, and at the same time prevent the formation of carbonic acid gas, but such a decomposition cannot be synonymous with putrefaction.—And further, although quicklime will hasten the decomposition of animal and vegetable matter and retain the carbon, it will at the same time form other compounds, which are not soluble in water, and, therefore, although it prevents one loss, it will occasion another, and a greater. But, if lime be slaked before it be added to the fermenting matter, it will equally facilitate its decomposition, and form other compositions that will be perfectly soluble. Yet, however powerful, as an agent in vegetation, lime may be; and there can be no doubt, that when properly applied, and under certain circumstances, it is capable of producing the most beneficial effects; I believe it will be found that it is not the most efficient that is produced by fire; nor that which acts with the greatest facility, in imparting to inert carbonaceous matter the active principles of fertility.

"With a view to discover this, and thereby the means of preparing a substance that may be dissolved in water, and thus be capable of supplying plants with the requisite nourishment without awaiting the result of the usual process of natural decomposition by the putrefactive fermentation, or of being under the necessity of stirring up the earth, or, when in pots, of changing the soil, and thus disturbing the roots. I made a great number of experiments; and the substance which I found to be the most efficient in every respect, in imparting those principles to the soil, which are requisite to sustain plants in health and vigor, was the serum, or watery part of blood, which separates from the clotted part, or crassamentum, after it has been a few days taken from an animal. This substance, diluted with five or six times its quantity of water, and applied, by pouring a sufficient quantity on the surface of the soil, to saturate the earth to the depth of the roots, enabled plants of every description that we are in the habit of cultivating, when planted in a soil perfectly destitute of carbonaceous matter, to attain the utmost size to which I had ever seen them grow in the most luxuriant soil; and such plants were thus brought to fructify at a much earlier period, and with greater vigor, than by any other means or supply of food. The solid, or clotted part of the blood could not be made available, until reduced by decomposition; and as the putrefactive fermentation was unavoidably attended with obnoxious effluvia, I at first reduced it by lime; but although thus rendered soluble, and productive of fertility, it was not so much so as the serum.

The writer then gives the results of chemical analysis of the serum and crassamentum of blood, and states that "the difference, then, in these substances appears to be that crassamentum contains no alkaline salts, and the serum no fibrine;" and concludes that the "absence or presence of carbon determines the degree of fertility of the soil; but we also discover the most efficient principle or agent for rendering available to plants, and such as appears prepared for the purpose by nature, which is alkali. The alkaline salts have, no doubt, been occasionally noticed as being productive of fertility, but as their principles of action were not understood, or not properly defined, their utility has never been established. I have never seen alkaline salts described as necessary or valuable ingredients in the food of plants in any chemical work. We know that alkaline salts are the production of vegetables, but as has been observed, the result of actual experiment proves that alkaline salts do not impart fertility to soils that are destitute of carbonaceous matter, and by the recent experiments of Sir Humphry Davy, it appears that alkaline salts are not, as they were previously considered to be, elementary substances, but compounds, formed of a metallic substance and oxygen; and that such metallic substance has such an affinity for oxygen, that it cannot exist in a separate state in contact with water. Any idea, then, that alkaline salts are reduced to their elements, and thus taken up by plants must not be entertained."

The last No. of Loudon's Gardener's Magazine, in noticing some agricultural addresses, sent from this country, says, it is gratifying to mark the spread of agricultural science and industrious pursuits in the United States. In speaking of three Addresses delivered before the Agricultural Societies of South Carolina, by Messrs. Hemy, Seabrook, and Townsend, the Editor says, "they are written with very considerable ability and knowledge of the subject; and we speak with the utmost impartiality, when we say, that during the rage for agriculturist societies which existed in England some years ago, no one address appeared, *not even those of Sir John Sinclair or Arthur Young, at all to be compared with them, either for extensive knowledge of the subject, or sound general views on agricultural legislation.*"

Alexander the Great observing the accuracy with which a peasant repeatedly threw a pea through the eye of a needle, ordered that a peck of peas should be given him as a reward of his skill. For a similar display, on the part of the Editor of the Agriculturist, we assign him two large potatoes and a radish, while we present the public with something worthy of consideration.

Wheat. A farmer, in this vicinity, raised the past season from 22¼ acres of land, the snug amount of *seven hundred and thirty four* bushels of good wheat; worth, when manufactured about $600 or 650, as flour sells at present. It would take *upwards* of a great many large potatoes and radishes to bring this sum in cash. [*Lawrenceburgh, Indiana.*

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* Voyage from Montreal to the Frozen and Pacific Oceans.

A PRICE CATALOGUE OF THE CELEBRATED CHILTON BREEDING STOCK,

Which was sold by auction, (by Mr. Fell,) at Chilton, in the county of Durham, England, on Monday, 31st of August, and Tuesday, 1st of September, 1829.

No.	Age.	Got by	COWS, HEIFERS, &c.	When Bulled.	By what Bull.	Bought by	Price. Gui.	Remarks.
1	8	*Cato*	Dam by Pope, grandam Flora, by Favourite, great grandam, Nymph, by the White Bull, g. g. grandam, Lily, by Favourite, g. g. g. grandam, Miss Lax (own sister to Lord Bolingbroke's dam) by Duke, g. g. g. g. grandam Lady Maynard, Favourite's grandam,	Nov. 26.	*Satellite*	Messrs. Adamson and [Holmes, *Ireland*.	130	Moderate, short of hair.
2	9	*Cato*	Dam by Jupiter, grandam by George, g. grandam by Chilton, g. g. grandam by Irishman, g. g. g. grandam B.	June 7.	*Monarch*	Mr. Maynard	70	Horns droop—good.
3	8	*Cato*	Dam by Sir Oliver, grandam Flora. See No. 1,	Mar. 26.	*Monarch*	Mr. Crawley, [*Bedfordshire*.	44	Bad udder, moderate.
4	13	*Jupiter*	Dam by Sir Oliver, grandam Raspberry, by Trunnell, g. grandam Strawberry, by Favourite, g. g. grandam Lily. See No. 1,	April 12.	*Monarch*	Mr. Willey	25	Poor, indifferent.
5	8	*Farmer*	Dam by George, grandam by Chilton, g. grandam by Irishman, g. g. grandam B.	July 28.	*Childers*	Mr. Crawley	24	Hind quarters bad.
6	7	*Syntax*	Dam by Charles, grandam by Henry, g. grandam Lydia, by Favourite, g. g. grandam Nell, by the White Bull, g. g. g. grandam Fortune, by Lord Bolingbroke, g. g. g. g. grandam by Foljambe, g. g. g. g. g. grandam by Hubbick, g. g. g. g. g. g. grandam, bred by Mr. Maynard,	May 24.	*Childers*	Lord Althorp	31	Poor, bad udder.
7		*Syntax*	Dam Newby,	Jan. 5.	*Monarch*	Mr. Arrowsmith	31	Fair.
8	5	*Syntax*	Dam by Charles, grandam by St. John, g. grandam by Chilton, g. g. grandam Nymph. See No. 1,	Jan. 1.	*Monarch*	Mr. Adamson	52	Bad udder.
9	5	*Achmet*	Dam by Jupiter, own sister to No. 4,	April 15.	*Childers*	Mr. Cattle	21	Moderate.
10	5	*Bonniface*	Dam by Farmer, grandam by Cato, g. grandam Cowslip, by St. John, g. g. grandam Flora. See No. 2,	Nov. 8.	*Monarch*	Sir T. Sykes	33	Calved a bull calf, indif.
11	5	*Syntax*	Dam, No. 5,	April 23.	*Monarch*	Lord Huntingfield	69	Fair.
12	4	*St. Alban's*	Dam, No. 2,	Feb. 3.	*Monarch*	Mr. Whittaker	140	
13	4	*Do.*	Dam, No. 4,	Feb. 23.	*Monarch*	Lord Althorp	145	Good.
14	4	*Do.*	Dam by Charles, grandam Newby,	Aug. 1.	*Matchem*	Mr. Smith	25	Indifferent.
15	4	*Do.*	Dam, No. 1,	July 28.	*Childers*	Mr. Reed	36	Bad teats.
16	4	*Do.*	Dam by Cato, grandam by Charles, g. grandam by St. John, g. g. grandam Nymph. See No. 1,	July 15.	*Childers*	Mr. Latouche, *Dublin*	73	Good.
17	4	*Do.*	Dam, No. 5,	Nov. 24.	*Monarch*	Mr. Archbold, *Dublin*	54	Good udder.
18	4	*Do.*	Dam by Farmer, grandam by Jupiter, own sister to No. 4,	May 19.	*Satellite and Childers*	Mr. Dinning	47	Not in calf, doubtful— [good.
19	4	*Do.*	Dam by Cato, grandam by Jupiter, own sister to No. 4,	June.	*Magog*	Lord Althorp	30	
20	3	*Satellite*	Dam, No. 2,	Feb. 2.	*Monarch*	Capt. Barclay	150	Slipped hip—good.
21	3	*Do.*	Dam by Cato, grandam by St. John, g. grandam by Chilton, g. g. grandam Nymph. See No. 1,	Mar. 25.	*Childers*	Lord Althorp	72	Fair
22	3	*Do.*	Dam by Farmer, grandam by Cato, g. grandam by Charles, g. g. grandam by St. John, g. g. g. grandam by Chilton, g. g. g. g. grandam Nymph. See No. 1,	Nov. 11.	*Magog*	Mr. Adamson	35	Indifferent.
23	3	*Satellite*	Dam by Houghton, grandam by Jupiter, g. grandam by George, g. g. grandam by Chilton, g. g. g. grandam by Irishman, g. g. g. g. grandam by B.	June 26.	*Waverly*	Mr. Beesley	30	Fair.
24	3	*Do.*	Dam by Farmer, grandam own sister to No. 4,	April 11.	*Monarch*	Mr. Cusacke, *Ireland*	21	Bad.
25	3	*Richard*	Dam by Jupiter, grandam by Charles, g. grandam by Windsor, g. g. grandam by Chilton, g. g. g. grandam by Colonel,	Mar. 3.	*Childers*	Lord Althorp	36	Indif. black tips (horns.)
26	3	*Do.*	Dam by Cato, grandam by Sir Oliver, g. grandam Young Lily, by St. John. See No. 1,	April 4.	*Childers*	Mr. Archbold	37	Indifferent.
27	2	*Satellite*	Dam, No. 1,	July 28.	*Childers*	Capt. Barclay	73	Fair.
28	2	*Do.*	Dam, No. 5,	Aug. 2.	*Whisker*	Mr. Latouche	60	Do.
29	2	*Do.*	Dam, Newby the younger,	May 12.	*Magog*	Lord Althorp	38	Bad.
30	2	*Do.*	Dam by Houghton. See No. 23,	April 12.	*Magog*	Mr. Dawson	31	Indifferent.
31	2	*Do.*	Dam by Syntax, grandam by Farmer,	Mar. 29.	*Childers*	Mr. Latouche	69	Good.
32	2	*Do.*	Dam by Syntax, grandam by Cato, g. grandam Cherry, by Sir Oliver, g. g. grandam Charmer, by Chilton, g. g. g. grandam Merry Lass, by Favourite, g. g. g. g. grandam by Ben, g. g. g. g. g. grandam bred by Mr. Newby, and sold to Mr. Charles Colling,	July 30.	*Childers*	Mr. Peters, *Cornwall*	66	Fair.
33	2	*Do.*	Dam. No. 8,	Mar. 3.	*Monarch*	Lord Huntingfield	40	Do.
34	2	*Do.*	Dam by Syntax, grandam Newby,	Feb. 9.	*Monarch*	Mr. Duncombe	94	Do.
35	2	*Do.*	Dam, No. 6,	Feb. 3.	*Monarch*	Ditto	69	Hind quarters poor.
36	2	*Do.*	Dam by Whitworth,	April 27.	*Magog*	Not sold		Not offered.
37	1	*Do.*	Dam, No. 1,	....	...	Mr. Holmes, *Ireland*	115	Tail too high, good.
38	1	*Do.*	Dam, No. 2,	....	...	Mr. Latouche	78	Indifferent.
39	1	*Do.*	Dam, No 3,	....	...	Mr. Peters	50	Fair.
40	1	*Do.*	Dam, No. 4,	....	...	Mr. Dawson	43	Black nose, indifferent.
41	1	*Do.*	Dam, No. 5,	....	...	Lord Althorp	42	Good, indif. hind qrs.
42	1	*Do.*	Dam by St. Alban's, grandam by Cato, g. grandam by Sir Oliver, g. g. grandam Flora. See No. 1,	....	...	Mr. Adamson	78	Fair.
43	1	*Monarch*	Dam, No. 13,	....	...	Sir T. Sykes	32	Diseased neck, fair.
44	1	*Do.*	Dam by Cato, grandam by George, g. grandam by Chilton, g. g. grandam by Irishman, g. g. g. grandam by B.	....	...	Mr. Latouche	78	Black nose do.
45	1	*Do.*	Dam by Houghton. See No. 23,	....	...	Lord Althorp	52	Do. do.
46	1	*Do.*	Dam by Farmer, grandam own sister to No. 4,	....	...	Rt Hon. C. Arbuthnot	26	Indifferent.

No.	Age.	Got by	COWS, HEIFERS, &c.	When Bulled.	By what Bull.	Bought by	Price. Gui.	Remarks.
47	1	*Monarch*	Dam, No. 11,	. . .	. . .	Lord Althorp	36	Good.
48	1	*Do.*	Dam, No. 10,	. . .	. . .	Not sold.		Not offered.
49	1	*Do.*	Dam by Cato, grandam Cherry, by Sir Oliver, g. grandam Charmer. See No. 32,	. . .	. . .	Lord Huntingfield	36	Indifferent.
50	1	*Falstaff*	Dam, No. 9,	. . .	. . .	Mr. Dawson	78	Wide horns, do.
51	1	*Do.*	Dam, No. 6,	. . .	. . .	Mr. Willy	30	Bad.
52	1	*Do.*	Dam by Syntax, grandam by Farmer,	. . .	. . .	Lord Althorp	40	Good.
53	1	*Do.*	Dam by Farmer, grandam by Charles,	. . .	. . .	Not sold.		Not offered.
	Mon old							
54	9	*Monarch*	Dam, No. 20,	. . .	. . .	Lord Althorp	50	Fair.
55	7	*Do.*	Dam, No. 4,	. . .	. . .	Ditto	48	Do.
56	10	*Do.*	Dam, No. 5,	. . .	. . .	Ditto	19	Very dark.
57	9	*Do.*	Dam, No. 13, grandam No. 4,	. . .	. . .	Ditto	56	Black nose.
58	9	*Do.*	Dam, No. 14, grandam Newby,	. . .	. . .	Ditto	52	Fair.
59	8	*Do.*	Dam, Newby the younger,	. . .	. . .	Mr. Millward	19	Black nose.
60	10	*Do.*	Dam, No. 26,	. . .	. . .	Lord Althorp	37	Fair.
61	3	*Do.*	Dam, No. 16,	. . .	. . .	Mr. Holmes	46	Do.
62	11	*Do.*	Dam by Satellite, grandam by Cato, g. grandam by Charles, g. g. grandam by Windsor, g. g. g. grandam by Chilton, g. g. g. g. grandam by Colonel,	. . .	. . .	Mr. Holmes	40	Black nose, do.
63	7	*Do.*	Dam by Satellite, grandam by Syntax, g. grandam by Cato, g. g. grandam Cherry,	. . .	. . .	Mr. Greenwell	27	Do. do.
64	12	*Falstaff.*	Dam, No. 21,	. . .	. . .	Lord Huntingfield	38	do.

No.	Age.	Name.	Got by	BULLS.	Bought by	Price. Gui.	Remarks.
1	3	MONARCH	*Satellite*	Dam, No. 1,	Mr. Latouche	270	Great good fore qrs. hair short.
2	2	CHILDERS	*Do.*	Dam, No. 2,	Mr. Dudding	225	Good, hair short.
3	2	MAGOG	*Matchem*	Dam by Farmer, grandam by Jupiter, g. grandam by Sir Oliver, g. g. grandam Raspberry, by Trunnell, g. g. g. grandam Strawberry, by Favourite, g. g. g. g. grandam Lily, by Favourite. See No. 1,	Mr. Metcalf	60	Very poor hind qrs.
4	3	FALSTAFF	*Satellite*	Dam, No. 3,	Mr. Spoors	36	Do. very massy—shoulder tops very broad—a bad coarse beast.
5	4	MATCHEM	*Bonniface*	Dam by Farmer, grandam by Charles, g. grandam by Henry, g. g. grandam Lydia, by Favourite, g. g. g. grandam Nell, by the White Bull, g. g. g. g. grandam Fortune, by Lord Bolingbroke, g. g. g. g. g. grandam by Foljambe, g. g. g. g. g. g. grandam by Hubbick, g. g. g. g. g. g. g. grandam bred by Mr. Maynard,	Mr. Maynard	110	Great fore, bad hind qrs.
6	3	DRIVER	*Satellite*	Dam by Cato, grandam by St. John, g. grandam by Chilton, g. g grandam Nymph. See No. 1,	Mr. Archbold	33	Thick horns—fore and hind quarters bad.
7	3	VOLUNTEER	*Satellite*	Dam by Farmer, grandam by St. John, g. grandam by Chilton, g. g. grandam Nymph. See No. 1,	Mr. Wilkinson *of Lenton.*	135	Poor hind quarters.
8	5	RICHARD	*Syntax*	Dam by Cato, grandam by Sir Oliver, g. grandam Charmer, by Chilton, g. g. grandam Merrylass, by Favourite, g. g. g. grandam by Ben, g. g. g. g. grandam bought of Mr. Newby.	Mr. Greenwell	28	Bad.
9	2	WAVERLY	*Satellite*	Dam, No. 19,	Sir C. Knightly, Bart.	60	Do.
10	2	HERDSMAN	*Satellite*	Dam by Cato, Irishman, B.	Mr. O'Farroll, *Ireland.*	28	Do.
11	1	WORTHY	*Satellite*	Dam by St Alban's grandam by Charles, g. grandam Newby,	Mr. James	95	Bad hind quarters.
12	1	WHISKER	*Monarch*	Dam, No. 19,	Mr. Kennedy	46	Do.
13	1	PLOUGHBOY	*Monarch*	Dam, No. 8,	Mr. Davison	40	Fair.
14	1	MERCURY	*Monarch*	Out of Matchem's dam,	Lord Althorp	120	Very broad nose—hind qrs droop.
15	1	GAMMUT	*Monarch*	Dam by Whitworth,	Mr. Bowman	52	Poor.
16	1	PUNCH	*Falstaff*	Dam by Cato, grandam by Jupiter, g. grandam Y. Gaudy,	Mr. Cassidy, *Ireland*	52	Bad hind quarters.
17	1	MERRINGTON	*Falstaff*	Dam by Cato, grandam by Charles, Windsor, Chilton, Colonel,	Mr. Kennedy	40	Indifferent.
18	1	FREDERICK	*Satellite*	Dam, Newby the younger,	Mr. J. Bates	41	Do.
19	1	HIGHFLYER	*Monarch*	Dam, No. 12,	Captain Davis	210	Good—best hind qrs.
20	8 mo	SNAP	*Monarch*	Dam, No. 2,	Mr. Millward	70	Large space.
21	8	WINDFALL	*Monarch*	Dam, No. 22,	Mr. Baker, *Elemore*	54	Indifferent.
22	9	GOLDFINDER	*Falstaff*	Dam, No. 9,	Mr. Vansittart	41	Do.
23	6	TRIMMER	*Monarch*	Dam, No. 24,	Mr. Walmsley	32	Do.
24	1	MIRACLE	*Do.*	Out of Matchem's dam,	Messrs Reed & Crofton	120	Fair.
25	1	WINDSOR	*Do.*	Dam, No. 19,	Lord Althorp	42	Indifferent.
26	3	PAYMASTER	*Falstaff*	Dam, No. 6,	Mr. Bailey	22	Do.
27	9 yr.	SATELLITE Bred by Wm. Robinson, Esq. of Ladykirk.	*Sirius*	Dam Rose, by Wellington, (son of Comet, bred by Mr. Charles Colling,) grandam (Ruby,) by Sultan, g. g. grandam by Lady Maynard's bull, g. g. g. grandam (Delight) by Foljambe,	Mr. Crawley	75	Good, but his services doubtful.
				Sirius was got by Midas, dam by Wellington, grandam by Sultan, g. grandam by Signior, g. g. grandam by Ladykirk. g. g. g. grandam (Strawberry, bred by Mr. Maynard,) by Dalton Duke, g. g. g. g. grandam (Favourite,) by Mr. R. Alcock's bull.			Hind qrs and catch rather poor, and bai not good.
				St. Alban's, by Wynyard, *Herd Book*, 149.			
				Dam Nell Gwynn, do 423.			
				Syntax, by Mars, do 80.			
				Dam Caroline, do 212.			
				Bonniface, by Syntax, dam No. 2.			

OF GRASS LANDS,

That ought not to be broken up by the Plough.

There are various sorts of grass lands that ought not to be broken up; as water meadows; salt marshes; lands apt to be overflowed; lands near large populous towns, where the produce of grass land is always in demand, and consequently dear; and low lying tracts, in the valleys of mountainous countries, particularly in chalky districts where old meadow land is scarce, and where a portion of it, to raise early and late food for stock, gives a great additional value to the adjoining upland. But whether rich lands, which have long remained in grass, and continue productive, should ever be converted into tillage, is a question respecting which a great diversity of opinion has been entertained.

The lands considered as best adapted for permanent pasture, are of three kinds: strong tenacious clays, unfit for turnips, or barley, which are said to improve the more, the longer they are kept under a judicious system in grass; soft clayey loams, with a clayey or marly bottom or substratum; and, rich sound deep-soiled land, or vale land, enriched by nature at the expense of the higher grounds, generally lying in a situation favorable with respect to climate.

The advantages of such pastures are represented in the strongest light. It is affirmed that they feed cattle to a greater weight; that they are not so easily scorched by the summer's drought; that the grasses are more nutritive both for sheep and cattle; that milch cows fed upon them give richer milk, and more butter and cheese; that the hoofs of all animals pastured on them are much better preserved; that they produce a greater variety of grasses; that when properly laid down, they yield a succession of pasture throughout the whole season; that the herbage is sweeter, and more easily digested; and that they return an immense produce at a trifling expense.

To break up lands possessing these advantages, it is said, can only be justified by the most urgent public necessity, and to prevent the horrors of famine. The real value of such lands will appear, by considering their rent and produce. The grass lands in Lincolnshire are accounted the richest in the kingdom. The rents are various, from 1*l.* 15*s.* to 3*l.* per acre, and the value of the produce from 3*l.* per acre to 10*l.* This produce arises from beef, mutton, and wool, and is obtained, subject to little variation from the nature of the seasons, and at a trifling expense. The stock maintained per acre on the best grazing lands, surpasses what could be fed by any arable produce. It is not at all uncommon to feed at the rate of from six to seven sheep in summer; and about two sheep in winter. The sheep when put on the grass may weigh from 18 lbs. to 20 lbs. per quarter, and the increase of weight would be at the rate of 4 lbs. per quarter, or 16 lbs. per sheep. But suppose in all only 100 lbs. at 8*d.* per pound, that would amount to 3*l.* 17*s.* 10*d.* The wool would be worth about two guineas more, besides the value of the winter keep, and the total may be stated at about seven pounds per acre, got at little expense. Such lands, it is evident, cannot be better employed than in feeding stock.

Grass land on tenacious clays and heavy loams, when brought in a succession of years, or perhaps of ages, into a state of great productiveness, cannot be ploughed without the risk of great injury, and are more profitable in the production of herbage than they could be in the production of grain.

Grass on deep-soiled sound vale lands, would be productive of corn if ploughed; but would probably be injured by cultivation; from their texture being altered, and rendered unduly loose and open by tillage; from the native plants being more or less destroyed or enfeebled; and from the great decomposition and waste of the principles of fertility resident in the soil.

The extent of these descriptions of land, however, is not so great, that the advantages of breaking them up could probably ever be a national object, or worth the risk of injuring their future productiveness in grass. But there are pasture lands of an inferior sort which are too apt to be confounded with those already described, and respecting the propriety of occasionally appropriating them to arable culture, there can hardly be a doubt. Such lands do not depend upon their intrinsic fertility, but upon annual supplies of manure derived from the arable land in their neighborhood.

Of the Advantages and Disadvantages of breaking up Grass Lands.

The advantages of breaking up grass lands, not of the richest quality, will appear by a comparison of their produce with that of arable lands. From the inquiry of the Board of Agriculture, it appears that an acre of clover, tares, rape, potatoes, turnips, cole, or cabbages, will furnish at least thrice as much food as the same acre would have done had it remained in pasture of a medium quality; and consequently, that the same extent of land would maintain at least as much stock as when in grass; besides producing every other year a valuable crop of corn; and this, independently of the value of the straw, whether consumed as litter, or as food for cattle, will add considerably to the stock of manure. It follows that with the exception of rich pastures, arable land is, on an average, superior to grass land with respect to furnishing articles of human food in the proportion of three to one; and consequently every piece of land, unnecessarily kept in grass, the produce of which will only maintain one person, is depriving the community of food, capable of maintaining two additional members.

The principal objection to the conversion of old turf into arable land, arises from an alleged inferiority in the new when compared to the old herbage; a complaint which probably originates either from the improper choice of seeds, or from giving them in too small quantities, thus favoring the growth of weeds. A gentleman who had a large farm, principally consisting of strong rich clay, (every field of which, with hardly an exception, he occasionally broke up) was accustomed to lay them down with a crop of barley, and to sow fourteen pounds of white clover, a peck of rib-grass, and three quarters of hay-seeds per acre. By this liberal allowance of seed, he always secured a thick coat of herbage the first year, which differed from old pasture only in being more luxuriant. Such lands, therefore, under judicious management, will rarely be injured by the plough. When laid down from tillage into grass, they may not carry for the first year or two, such heavy cattle as they would afterwards, but they will support more in number, though of a smaller size, and bring a greater weight of butcher meat to market. It is often desirable to keep one or two moderate-sized enclosures, of from ten to twenty acres, according to the size of the farm, in perennial pasture, for the feeding of cattle and sheep; and as a resource for the stock to go to in case of a severe spring, or summer drought; but the retaining of any considerable portion of a farm in old turf, or permanent pasture, unless of the richest quality, is, in general, injurious to the landlord, the tenant, and the public. The value of any estate, where the system of permanent pasture has been carried to an unreasonable extent, may be easily and greatly augmented by appropriating the manure of the farm to turnips and other green crops, and by the adoption of the convertible system of husbandry.

There are many cases where this doctrine, though in general to be recommended, ought not to be carried to its full extent. In Norfolk, where the land is commonly light, and where sheep are both bred and fed upon the same farm, a proportion of permanent pasture is essential. Much injury in particular has been sustained by breaking up permanent pastures on such soils, more especially when subject to rectorial tithes. Many lands of an inferior soil, which kept two sheep on an acre, paying only vicarial tithes, and rented at ten shillings per acre, since they have been broken up, cannot pay, even without rent, the tithe of corn and the expense of cultivation. A farm in general lets best, with a fair proportion of grass land upon it, which admits of a mixed management, in consequence of which, if one object fail, another may be successful.

With respect to the disadvantages of breaking up pastures, it is alleged in *The Code of Agriculture,* that there is a risk of tenants breaking through their engagements (p. 473, 3d edit.,) by which we suppose is to be understood the chance of their taking a few good crops from the newly-broke-up lands, and then leaving the farm. Tenants who would do this must certainly be as wicked, as the landlords who would put it in their power would be imbecile. No other disadvantage is stated, and this may safely be left to work its own cure. [*Loudon's En. Ag.*

RURAL ECONOMY.

(From the New England Farmer.)

MAKING BUTTER IN WINTER.

Mr. Fessenden,—I am under the necessity of making known to you, one among the peck of troubles that I endure; and of requesting your assistance. You must know that I am a great lover of good bread and butter, and have thus far enjoyed, by the kindness of a good Providence, and my good wife, a pretty good share of it. My wife has also a sweet tooth of her own in this particular, and takes great pride in her fame for good butter; and I do wish that it could be so, that some of her round yellow balls could, by some means, get into your exhibition at Brighton, and find a place on the same shelf with that of Col. Hastings' the sterling butter man and others. I declare to you, sir, that I should not fear the result. But this does not come to the point.

Well, sir, as I was going to say—this morning my wife, having got her cream prepared, set Betty to churning; who, with her usual diligence, applied herself to the business for some hours with no apparent success; and although Betty has a due share of perseverance, she, at this time, began to exhibit some signs of despair. My wife began to wonder why the butter did not come, and now and then gave Betty a helping hand. Thus it went on till noon, when, after dinner, Jonathan was sentenced for a while to the churn. But he, poor fellow soon began to wish he was in the barn floor, threshing oats. After an hour or so, Betty's spirits and strength revived, and released Jonathan from his irksome duty, and she resumed the task, and made all spatter again for some time. But the butter did not come, and both wife and Betty began to wonder again, and now and then to scold a little. At this critical turn of affairs, I could do no less than volunteer for a while in the service myself, and so took hold of the dasher, thinking to myself how I should soon reap the whole glory of a campaign chiefly won by others. But, sir, this exhilarating anticipation was followed by a sad disappointment. I labored hard for two hours or more without success, my pride of character preventing me from "giving up the ship." But, alas! after some further vain exertion, my dear wife, with her usual humane feelings, took pity on, and relieved me; and I, after a sip or two of our real old orchard, have set down to make this statement and inquiry to you.

Now, sir, the long and short of the matter is, that I wish to know why the churning or stirring of cream produces butter. I think it very likely that you never lifted a churn dash in all your life, nor perhaps ever saw the inside of a dairy room; yet as they say you are a man of learning in these matters, which I suppose you have got out of books, I make bold to put the question, hoping that you, or some of your learned correspondents, will answer it. My neighbor Hardhack thinks that these book farmers are rather poor ignoramuses, but for myself, I believe there is much to be learned by the farmer from books. If it is not an object for discerning men to record their improvements in *farming* in books, what in the name of common sense can be an object for so doing.

But as to the butter—I want to know why butter is longer coming at one time than another—in the winter than in the summer? When we have made these inquiries, and stated our difficulties in churning at this time of the year, one has advised to put in a little salt; and so we have put in a little salt. Another said, put in a little vinegar; and so we tried a little vinegar. Another said, turn in warm water; and we tried that time and again. But after all, we have found nothing to answer on many occasions. My wife insists upon it that the cause is the cows eating at the same time both hay and grass; or to their eating the corn butt stalks and husks that are given them when we first begin to house them, as we uniformly have a hard time in churning when the cattle are thus fed. We always warm our cream before churning in cold weather, but this does not prevent the difficulty.

Now, Sir, if you can give us a little light on the subject, you will much oblige, as well my dear wife and her maid Betty, as DANIEL GREENSWARD.

Down East, Nov. 13, 1829.

Remarks by the Editor.—Butter is obtained from cream, by separating its constituent parts, into two substances, viz. *butter*, or the *oil of milk;* combined with *oxygen*, or *vital air*, and *butter-milk*, or cream deprived of its oil. Oxygen, is the principal of acidity, or the substance which gives sourness to vinegar; also to sulphuric acid, [oil of vitroil] and other mineral acids, and to fruits, &c. But oxygen will not combine with cream, and thereby produce butter unless under certain conditions, and according to the following, among other laws of nature. The cream must be of a certain temperature, or the oxygen will not unite with it, and its particles must be exposed to air in order to imbibe oxygen, which composes a part of the atmosphere.

Every housewife knows that she cannot convert, cider into vinegar in cold weather, without artificial and *continued* warmth. Pouring a little hot water into the cider would not answer, because the heat would be too transient. But by raising the temperature of cider in the coldest parts of the season, to summer heat, and keeping it exposed to air of a summer heat, for several days, vinegar may as well be made in January as in June. And if you make your cream warm enough, and keep it warm long enough, you may as well, we believe, provided your cows are well fed, make butter in the depth of winter, as in the height of summer. This may be done by keeping your dairy room warm by a stove or other means, or by setting metal milk pans in vessels of wood, surrounding them with hot water, and renewing the hot water as occasion may require, till the cream is sufficiently oxygenated, or slightly soured.

The whole theory of butter-making may be briefly described as follows:—butter is formed by the oxygenating (slightly souring or acidulating) of the oil of cream. This oxygenation will not take place when the cream is below, at, or nearly down to the freezing point. The souring commences previous to churning merely by standing exposed to the atmosphere, from which it absorbs oxygen. The process is afterwards completed by churning; the violent motion, which this operation induces, bringing every particle in contact with the atmosphere, and thus facilitating its oxyenation.

INTERNAL IMPROVEMENT.

[We have so many patrons to the American Farmer within the district benefited by the Dismal Swamp Canal, that we take pleasure in publishing expositions of the advantages it is likely to afford. The following is from the Norfolk Beacon, of the 2d inst.]

DISMAL SWAMP CANAL COMMERCE.

The following statement of vessels that have passed through the *Locks*, between the 7th and 27th Nov. a space of twenty days, will afford some idea of the improving condition of this new avenue of commerce. It is one of the articles which has been excluded since Saturday by a press of matter. We offer our thanks to the lockkeeper, Mr. *D. M. Curtis,* for his prompt attention to our request to supply us with a weekly list of the vessels passing the Locks.

Nov. 7th.—Schr. Dove, from Alligator river, for Richmond, with shingles; *8th*, schr. Joseph, from Currituck, for Gosport, with oars; *9th*, sloop Cynthia, from Murfreesboro' for Norfolk and Petersburg, with fish, tar and shingles; sloop Enterprize, from North West river, for Norfolk, with leather and staves; *12th*, schr. Joseph, from Norfolk, for Eliz. City, with Goods; schr. Only Daughter, from Norfolk, returning light; Transportation Co's schr. Meherrin, from Norfolk, for Weldon, with goods; schr. Louisa, from Edenton, for Norfolk, with cotton, staves, and plank; *13th*, schr. Sarah Ann, from Ocracock, for Alexandria, with salt and tar; *13th*, schr. American Lady, from Scuppernong river, for Norfolk, with shingles; *14th*, schr. Nansemond, from Gates C. H. for Norfolk, with staves; sloop Atlantic from Baltimore, returning light; schr. Polly and Nancy, do. do.; schr. Newbern packet, from Norfolk, for Newbern, with various goods; schr. Independence, from Gates C. H. for Norfolk, with staves; *15th*, schr. Sons & Daughters, from Boddy's island, for Norfolk, with sundries from wreck of brig Rosanna; schr. Rising States, from Baltimore, returning light; Tr. Co's schr. Dan, from Norfolk, for Weldon, light; Tr. Co's schr. Elizabeth, from Norfolk, for Weldon, with goods; *17th*, schr. Enterprize, of Portland, from Norfolk, for Elizabeth City, in ballast; *18th*, Tr. Co's schr. Nottoway, from Weldon, for Norfolk, with flour, tobacco and cotton; Tr. Co's schr. Pasquotank, from Weldon, for Norfolk, with flour and tobacco; schr. Dove, from Richmond, for Elizabeth City, with goods; sloop Enterprize, from Norfolk, for Elizabeth City, with goods; *19th*, schr. Federal Fancy, from Elizabeth City, for Petersburg, with tar and corn; Tr. Co's schr. Chowan, from Murfreesboro', for Norfolk, with pipe staves; schr. Favorite, from Chowan river, for Norfolk, with staves; *20th*, schr. Sons & Daughters, from Norfolk, for Elizabeth City, with sundry goods; schr. Louisa, from Norfolk, returning light; schr. Polly & Nancy, from Alligator river, for Alexandria, with shingles; *22d*, schr. Carolina, from Norfolk, for Hertford, with sundry goods; *23d*, schr. Sea Flower, from Scuppernong river, for Baltimore, with shingles; schr. Sisters, from do. do. do.; *24th*, schr. Rhoda & Margaret, from Baltimore, returning light; sloop Delight, do. do.; schr. Charity, from Tyrrel county, for Norfolk, with staves; *25th*, schr. Antelope, from Alexandria, returning light; schr. Chelsea, do. do.; sloop Mahala, from Alligator river, for Choptank river, with shingles; schr. American Lady, from Norfolk, returning light; schr. Union, from Elizabeth City, for Richmond, with shingles; schr. Eliza Ann, from Currituck, for Norfolk, with staves; *26th*, schr. Jovial Crew, from Baltimore, returning light; Transportation Co's schrs. Nottoway and Pasquotank, from Norfolk, for Weldon, with goods; *27th*, do. do. Nansemond, from Norfolk for Gates Court House, with goods.

From Nov. 7th to 27th inclusive—Seven Canal Lighters, with small shingles; one do. do. with shingles and staves; one do. do. with wood; one do. do. with pales; three do. and thirteen rafts of plank and timber, for Norfolk and Gosport.

RAIL ROADS FOR TRAVELLING.

The late experiments with locomotive engines on the Liverpool and Manchester rail road, have afforded new proofs of the fitness of the rail road for rapid and cheap travelling. These experiments have been successful beyond any one's anticipation. Some persons have ventured to predict that locomotive engines might be made to travel with safety at the rate of twenty miles an hour, and these experiments show that they will travel thirty miles an hour, and with such an equal and steady motion that passengers while travelling at that rate can read and write.

A friend has put into our hands a publication which details the successive experiments which were made in the month of October last by the competitors for the premium of *l*500, which were offered by the Directors of the Liverpool and Manchester rail road for the lomocotive engines which should draw on the rail road a given weight, with the greatest speed, and at the least expense. Five engines were entered as competitors for the premium. These were described in an article from a Liverpool paper, published in our paper of Saturday. Several other engines were in preparation, but by various accidents were prevented from being finished in season.

The principal conditions on which the prize was offered were, 1st, That each engine should weigh not more than six tons, and be capable of drawing after it day by day, on a level plain, a train of carriages of a gross weight equal to three times the weight of the engine itself, at a rate of not less than ten miles an hour, with a pressure of steam in the boiler not exceeding 50 lbs. on the square inch. 2d, That the engine and boiler should be supported on springs and rest on six wheels, and the height from the ground to the top of the chimney should not exceed 15 feet. 3d, That the engine should effectually consume its own smoke, and, 4th, That there should be two safety valves, one of which should be completely out of the reach of the engine man's interference. Mr. Wood, the author of the Treatise on Railways, Mr. Rastriche, a civil engineer, and Mr. Kennedy were the judges.

A portion of the railway which is laid on a perfect level, at a distance of nine miles from Liverpool, was selected for the running ground. Crowds of people were assembled to witness the competition, and many persons, chiefly engineers and men of science, capable of appreciating the importance of the improvement, came hundreds of miles for no other purpose than that of being spectators. The following is an abridged statement of some of the experiments, which were continued for several successive days.

The first trial was made by the Rocket, of Mr. Robert Stephenson, son of Mr. George Stephenson, the engineer of the Liverpool and Manchester Railway. It was a large and strongly built engine, weighing 4 tons, 3 cwt. and it drew after it a load of three times its weight, or 12 tons 9 cwt. With this weight it travelled at the rate of ten miles four chains in an hour, and without the weight, eighteen miles an hour. It did not move with an equal motion, and it but partially consumed its own smoke.

The next engine exhibited was the Novelty, of Messrs. Braithwaite and Erickson, of little more than half the weight of the Rocket. Its compactness and beautiful workmanship excited universal admiration, which sentiment, the narrator remarks, was speedily changed into perfect wonder, by its truly marvellous performances. It was resolved first to try its speed. It was therefore put in motion, carrying only its complement of coke and water, with Messrs. Braithwaite and Erickson to manage it. Almost at once, it darted off at the amazing velocity of 28 miles an hour, and *it actually did one mile in the incredible short space of one minute and 53 seconds!* Neither did we observe any appreciable falling off in the rate of speed. *It was uniform, steady and continuous.* Had the Railway been completed the engine would at this rate have gone nearly the whole way from Liverpool to Manchester within the hour; and Mr. Braithwaite has indeed publicly offered to stake a thousand pounds that as soon as the road is opened he will perform the whole distance (32 miles) in that time.

The same engine was then tried with a load equal to three times its weight, viz. 11 tons 5 cwt. It drew this with ease at the rate of 20¾ miles an hour.—"We took particular notice," says the narrator, "of its power of consuming its own smoke, and did not at any time observe the omission of the smallest particle from the chimney." These were not the decisive experiments with these engines, but merely preliminary trials made on the two first days the engines were entered. On the 2d day the experiments were interrupted by the bad state of the weather. On these results, a writer in the Liverpool Chronicle makes the following remarks:

"When we consider that at this rate of going, Liverpool and Manchester, which are at present near half a day's journey distant, will be brought within an hour's travel of each other; and pass from this fact to the contemplation of the vast changes which so rapid a mode of conveyance will effect in all the relations of society in this quarter of the kingdom, we feel at a loss for examples with which to contrast this great triumph of human ingenuity." The editor of the London Mechanics' Magazine adds: "But suppose we go a step further, and estimate what the effects will be of extending this system of communication over the whole kingdom; what mind is there so comprehensive as to embrace all the important consequences to which it will lead? We think we shall not go far in saying that it will produce an entire change in the face of British society. The effect will be much the same as if the workshop of the manufacturer were brought alongside the quarry where he obtains his raw material, and whence he sends it forth again in a manufactured shape to the most distant parts of the world; or as if the collieries, iron mines, and potteries of the heart of England were scattered along its shores.—Peculiar local advantages will figure less than they have done in our manufacturing and commercial history, since whatever one place produces, can be as quickly and cheaply transported to another; and instead of our manufacturers continuing concentrated in two or three large towns, to the great injury of the moral and physical condition of those employed in them, we may expect to see them spreading gradually over the kingdom. *Living in the country*, will no longer be a term synonymous with every sort of inconvenience; and it will come to be a mere matter of choice, whether a man of business lives close by his counting house, or thirty miles from it. The rents of lands and houses will not be raised by the change, but they will be equalized; they will be reduced in town, and raised in the country. In proportion, too, as the intercourse of men with each other, and the interchange of commodities between them is thus facilitated, the greater will be the cheapness of every thing; the more our manufacturers will have it in their power to bear up against that foreign competition by which they are so much endangered. The oftener (to use a common phrase) the penny is turned, the greater the profit; and the quicker a trader's return, the smaller capital he requires in business. In fine, we may say of railways in general, as a worthy gentleman is said to have observed of the Stockton and Darlington line, and with ten times a greater probability of seeing our prophecy realized. 'Let the country but make rail roads, and the rail roads will make the country.'"

[*Boston Adv'r.*

LADIES' DEPARTMENT.

THE WELCOME TO DEATH.

By Mrs. Hemans.

Shall I abide
In this dull world?
I have
Immortal longings in me.

Anthony & Cleopatra.

Thou art welcome, O thou warning voice,
My soul has pined for thee;
Thou art welcome as sweet sounds from shore,
To wander on the sea.
I hear thee in the rustling woods,
In the sighing vernal airs,
Thou call'st me from the lonely earth
With a deeper tone than theirs.

The lonely earth! since kindred steps
From its green path are fled,
A dimness and a hush have fall'n
O'er all its beauty spread.
The silence of the unanswering soul
Is on me and around;
My heart hath echoes but for *thee*,
Thou still small warning sound!

Voice after voice hath died away,
Once in my dwelling heard;
Sweet household name by name hath chang'd
To grief's forbidden word!
For dreams of night on each I call,
Each of the far removed;
And waken to my own wild cry,
Where are ye, my beloved?

Ye left me! and earth's flowers grew fill'd
With records of the past,
And stars pour'd down another light
Than o'er my youth they cast;
The sky-lark sings not as he sung
When ye were by my side,
And moornful tones are in the wind,
Unheard before ye died.

Thou art welcome, O thou summoner,
Why should the last remain?
What heart can reach my heart of hearts,
Bearing in light again?
Even could this be—too much of fear
O'er love would *now* be thrown—
Away, away! from time, from change,
To dwell amidst my own!

MISCELLANEOUS.

Hot Springs of Arkansas.

A writer in the Little Rock Gazette gives the following description of the Hot Springs of Arkansas:

The Springs are about five miles in a direct line from the Washita river, and about a quarter of a degree north of the Louisiana line. They break out of the side of a mountain, are very numerous and abundant in water; indeed, they burst out every where in the sides and bottom of a very pretty rocky creek into which they all run. It is said they are 70 in number. They are so numerous, and their heat so great, that after two or three weeks of dry weather, the creek becomes too hot to bathe in opposite the springs, and bathers go an eighth or a quarter of a mile below, where the water is bearable. The exact temperature we could not ascertain; but it exceeds 150 degrees of Farenheit's thermometer. I should judge the warmest spring to have a temperature of 180 degrees. Practical persons will recognize the degree of heat by the fact that the water will readily scald the hair from hogs. I believe they are the warmest waters known, except those of the Hecla, in Iceland. The water retains its heat for a great length of time; let into a bath at night, it is of a right temperature to bathe in the morning. It is used either by bathing in the water, or by exposing the body to the steam which arises from it when confined, and for this purpose, some rude contrivances are raised over two or three of the principal springs. They have produced extraordinary cures in rheumatism, paralysis, liver complaint, enlargement of the spleen, eruptions, pulmonary complaints obstructions and chronic disorders of every kind.

THE FARMER.

Baltimore, Friday, December 11, 1829.

☞ We have repeatedly taken occasion to notice the high prices given for the cattle called improved Durham Short Horns. The catalogue which we have published of a recent sale of Mr. Mason's stock, proves that the zeal for improvements by means of that breed of cattle has in nowise abated in England, after a trial of nearly thirty years.

In the United States, it is manifest by the sales of Col. Powel's stock, that we are likely to rival the breeders of Great Britain, at least in zeal, and it is to be presumed, in successful competition.

The demand for calves exceeds the number produced at Powelton, from which he is disposed to part. Bull calves, from 9 months to yearlings, produce from 200 to $400.

There are at this time upon his farm some remarkable instances of valuable properties for the dairy. Belina produced, as appears by the affidavits of various respectable persons, 20½ lbs. of butter in one week; Zenobia 19 lbs. of butter in one week; Sarah 13¼ lbs. of butter in the same time.

No. 1 sold at Mr. Mason's for 130 guineas.
15 - - - - 56 "
27 - - - - 73 "
37 - - - - 115 "
1 Monarch, a bull, for 270 guineas.

624 average 125

No. 2 70 guineas.
12 140 "
20 150 "
38 78 "
19 210 } Bulls.
2 225 }

It appears that three bulls sold for 705 *guineas*, and five cows for 435 guineas.

☞ Many who have written for specimens of the American Turf Register and Sporting Magazine, published in Baltimore by J. S. Skinner, seem to suppose that it is printed in the form and manner of a common newspaper; a single number of which may at any time be lost or given, or thrown away, without consideration. Instead of which, it appears but once a month, in the form of an octavo pamphlet or review; each number containing fifty or more pages, and a table of contents.

It is printed on the finest paper with new type, in the most elegant style, with engravings of celebrated American horses, dogs, and other sporting subjects. These engravings alone cost from 60 to $100 for each number. Besides the table of contents to each number, there will be published a minute index to each volume.

This volume, from year to year, will constitute a lasting record, of easy reference, in which may be found the proceedings of Jockey Clubs, the History of all bred Horses, their pedigree and performances, accounts of trotting and shooting matches, of the regular and match races, a list of thorough bred Stallions in all the states, as far as practicable, where they are to stand, and the prices.

The Turf Register and Sporting Magazine will, in fact, constitute, as its title purports, faithful annals of the American Turf; but besides that each number will have entertaining and instructive papers on the natural history of American game—animals, birds, fish, &c., and sketches and anecdotes of hunting, shooting, fishing, &c. Hence it would seem that to all those who have property in blooded horses, or who wish to obtain the best knowledge of that animal, and his management in health and in sickness, this work will become more and more indispensable; whilst to sportsmen of every kind, from the patient trout fisher in the solitude of the mountain, to the hardy gunner in the marsh or on the moor, as well as to the students and lovers of natural history, it ought to prove as useful as entertaining.

On the style of its execution, the most unqualified approbation has been indicated by the conductors of many of the leading journals of the Union; but of its general scope and contents, a more exact opinion may be formed on a view of the following table of contents of the December (4th) number.

Portrait of Sir Archy, engraved by Cone, from a painting by Fisher—Memoir of Sir Archy, his pedigree, performances and progeny—Diomed, his pedigree and progeny—Grey Diomed, his pedigree and progeny—The blood horse in Kentucky—Printer, notice of—Spread Eagle's get—Gabriel, the imported horse, his pedigree and performances—Bell-Air, his pedigree and performances—Calypso, her pedigree and performances—Horses of the olden time—Taming wild and vicious horses, by a secret method—Racing in England—Hints to shooters, No. 2—Ruffed grous, sketch of its habits, &c.—Pointer, Setter and Springer, remarks on the character and uses of each—Projectiles—The climbing dog, story of—Canine Hygina—Worms in dogs, cure for—Deer, natural history of the—Deer hunting in Carolina described—Hunting song, the Horn of Chase—Red fox, remarks on in Virginia—A hunt in the skies—Baltimore pack of hounds, a morning with the—The quail, interesting particulars in the natural history of—Fishing extraordinary in Carolina—Game, duty on in England. Sporting Intelligence, Rifle shooting; Pigeon shooting; Indian ball play; Nashville races; Match running; Florence races; Louisville races; Gloucester (Va.) races; Columbia (S. C.) races; Racing in England; The chase; List of stallions for next season. Turf Register, List of pedigrees.

Any one wishing to subscribe has only to inclose $5 to the Editor by mail, at his risk and cost, and the work will be sent in good order—and any person sending $30 will be entitled to a seventh copy. The numbers may be had from the commencement. It can in no case be sent without the money.

☞If Editors with whom we exchange will have the kindness to copy the above, we will gladly reciprocate the obligation.

The premium of $20, offered by the Editor of the Delaware Advertiser, for the greatest quantity of Indian corn to an acre of ground, has been awarded to Dr. Joseph E. Muse, of Cambridge, Md. who has raised, the present season, from one acre of land, *one hundred bushels, one gallon, two quarts, and one pint of shelled corn.*—(Particulars in our next.)

Latest Foreign News.

By the Manchester at N. York, Liverpool papers are received to the 2d Nov. and London of the 1st.

They contain no news, nor any later intelligence from the Continent. We subjoin the account of the Liverpool Cotton market for the week ending 31st October.

Liverpool Market, Oct. 31.

We have to notice another week of extensive business in the Cotton market. The import this week is only 1832 bags, but the sales are 19,250 bags, (including 1000 Surats and Brazils, taken for export,) at about last week's prices. The auction of Surats and Sea islands was well attended. The sales include 1550 Sea islands at 11d to 17¾; 50 stained do. at 5d to 8½d; 4680 Boweds at 5 *a* 6 3-8d; 1970 Orleans at 5½d to 7d; 2780 Alabamas, Mobiles, &c. at 4 7-8 to 6¼; 1270 Egyptians at 5 7-8d to 7¾, and 1520 Surats at 3 3-8d to 4½d per lb. The export of Raw Cotton from Great Britain, during the month ending 24th October, was 16,135 bags, and from London, Liverpool and Hull, in the shape of Calicoes only, (22,113,) and of Twist (19,696) amounting to 41,809 bags of Raw Cotton.

Liverpool Corn Market, Oct. 31.

On Tuesday, Irish new Wheat sold readily at an advance of 3d to 4d per 70 lbs. New Oats were also sold 1d per 45 lbs. dearer, and the market was well cleared of both articles. The supplies have subsequently been unusually small, and the stocks of the principal articles of trade in this port have seldom been at so low an ebb as at the present—not exceeding 25,000 to 30,000 quarters each of Wheat and Oats. This morning there was scarcely a sample of fine new Wheat, and not one of new Oats on show. The secondary qualities of the former articles were selling at a further improvement of 2d per 70 lbs.—Good Irish new would readily have brought 8s. Old Wheats were held for a similar advance, but there were few buyers.

☞We are obliged to our Baltimore County Subscriber for pointing out a supposed error in our last. However, on referring to the manuscript, we find the words distinctly written, as printed.

Prices Current in New York, December 5.

Bees-wax, yellow .28 a .—. *Cotton*, New Orleans .9¼ a .12½; Upland, .8½ a .10¾; Alabama, .8½ a 11. *Cotton Bagging*, Hemp yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask 9.75 a 9.87½; clean—; *Flour*, N. York, bbl. 5.25 a 5.37½; Canal 5.37½ a 5.62½; Balt. Howard st. 5.87½ a 6; Richmond city mills, 5.87½; country,— a 5.37½; Alexand'a, 5.37½ a 5.75; Fredericksburg 5.25 a 5.37½; Petersburg, 5.25 a 5.37½ Rye Flour, 3.25 a 3.50; Indian Meal, per bbl. 2.75 a ——; per hhd 13.50 a ——. *Grain*, Wheat, Vir. —— a —— N. Caro. —— a ——; Rye, North, 63 a 67; Corn, Yel. Nor. .48 a .58; Barley, .65 a .66; Oats, South and North, .30 a .36; Peas, white, dry 7 bu.——; Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 7.75 a 8; prime 5.37½ a 5.75; cargo —— a 4.25; Butter, N. York, .12 a .15; shipping, .8 a 11; Lard, .5 a .6; Pork, mess 11.00 a 11.50; prime 9. a 9.50; cargo—— a ——; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* .2.50 a .3. *Tobacco*, Virginia .4½ a .6 a .7; Kentucky, .4 a .6 a .7.

Prices Current in Boston, December 4.

Apples, best, bbl. 1.75 a 2.25. *Beans*, white, bushel 1.00 a 1.25. *Beef*, mess, bbl. 9.00 a——; cargo No. 1, 7.50 a ——; No. 2, 6.50 a —— *Butter*, inspected, No. 1, new, lb. .13 a .15. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.87 a 6.12; Genesee, 5.87 a 6.00; Rye, best, 3.62 a 3.87. *Grain*, Corn, bu. .62 a 63; Rye, .75 a .78; Barley .67; Oats .40 a .45. *Hogs'-Lard*, 1st sort, new, lb. .8 a 8½. *Pork*, clear, bbl. 15 a 16; Navy, mess, 12.00 a 12.50; Cargo, No. 1. 12.00 a 12.50. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 38 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool*, Merino, full blood, washed, .38 a .40; do. do. unwashed, .20 a .25; do. three-fourths, washed, .30 *a* .33, do. half blood, .28 *a* .30; do. quarter, washed, .25 *a* .26; Native, washed .25 a .26; Pulled, Lambs', 1st sort, .35 a 36; do. 2d sort, .26 a .27; do. spinning, 1st sort, 30 a .32.

ALMANAC.

1829. December.	Sun. Rises.		Sun. Sets.		Length of days.		Moon Rises.	
	H.	M.	H.	M.	H.	M.	H.	M
Saturday,...... 12	7	22	4	38	9	16	7	10
Sunday,........ 13	7	22	4	38	9	16	8	8
Monday,....... 14	7	23	4	37	9	14	9	6
Tuesday,...... 15	7	23	4	37	9	14	10	2
Wednesday,.. 16	7	23	4	37	9	14	10	59
Thursday,..... 17	7	23	4	37	9	14	11	55
Friday,......... 18	7	23	4	37	9	14	morn.	

Moon—Last Quarter, 18th 0 h. 57 m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There is a further decline in flour, Howard street being now held at $5 from stores—the wagon price is $4.75. Grain has also declined, and is plenty at quotations. Beef is a little more brisk, a trifling advance will be noticed.

Tobacco.—Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 18.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 18.00; wrappery, suitable for segars, 7.00 a 12.00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4 00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week comprise 412 hogsheads Maryland, and 31 hogsheads Ohio.—Total 443 hhds.

Flour—best white wheat family, $6.25 *a* 6.75—super. Howard st. 5.00 *a* —; city mills, 4.75 *a* ——; Susquehanna, ——. Corn Meal, bbl. 2.50 *a* 2.62½—Grain, best red wheat, .90 *a* .—; best white do. 1.01 *a* 1.05; ordinary to good, .80 *a*. .65—Corn, old white, .36 *a* .38; yel. .36 *a* .38; new .35 *a*. 37—Rye, .46 *a* .47—Oats, .30.—Beans, 1.10 *a* ——Peas, .65 *a* ——Clover seed, 4.25 *a* ——Timothy, — 2.50—Orchard Grass, 2.00 ——Herd's, —- *a* 1.50—Lucerne .37½ *a* .50 lb.—Barley, .50 *a* .55—Flaxseed, 1.20—Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12—Alab. 9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .23½ *a* .—; in bbls. .25 *a* 26—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .28 *a* .30—full do. .30 *a* .35, accord'g to qual.—Hemp, Russia, ton, $220 *a* 225; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, — *a* 6.25; No. 2, 5.75 *a* —— No. 3, 4.00 *a* ——Bacon, hams, Balt. cured, .9 *a* .9½—Feathers, .33 *a* .——Plaster Paris, cargo price per ton, 4.55, ground, 1.25 bbl.—Prime Beef on the hoof, 4.50 *a* 5.00.—Pork, 4.75—Pine Wood, by the vessel load, 2.25 to 2.50; by the single cord, 2.75—Oak Wood, by the vessel load, 3.25 to 3.50—Hickory, 5.00 to 5.50.

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AGRICULTURE.

COFFEE

The plant is the *coffea Arabica* of naturalists. Although cultivated upon extensive plantations at Java, Ceylon, Surinam, Cayenne, the isles of France and Reunion (or Bourbon) and throughout the West Indies, the grains or beans are not so highly esteemed by Europeans as those obtained from plants cultivated in Yemen, a province of Arabia, and which are almost always exported from Mocha one of the sea ports. Indeed, although naturalists are acquainted with at least six species of the coffee tree, that of Arabia is the only one *cultivated*. It is not more than two centuries since this plant, now so celebrated, was entirely unknown throughout Europe. It appears to have been derived from Upper Ethiopia where according to Bruce, the coffee drink was known from time immemorial. When the Portuguese made their celebrated voyage round the Cape of Good Hope, they noticed plantations of the tree upon the Arabian coast. Raynal observes, that the fruitless attempts of Europeans to make the coffee bean germinate led them to suspect, that the planters of Arabia and Egypt were in the habit of scalding the grains, so as to destroy their vitality, and thus limit the cultivation. This incorrect opinion was first removed by the importation of the trees themselves into Batavia, Bourbon, and Surinam; for it soon appeared that the coffee seeds will not germinate when kept out of ground a few weeks after they have become ripe.

The coffee plant grows to most advantage upon mountains, where, in consequence of the slope, its roots continue comparatively dry, while the branches are frequently watered by gentle showers.

The flavor of the bean depends, a great deal, upon the luxuriance of the tree; "thus, it is found that a light, gravelly, or even stony soil (which rather stints the growth) is better adapted to furnish highly flavored coffee than a rich, deep, and damp soil. In the last case "the beans, which are large and of a dingy green, prove, for many years, rank and vapid." Edwards attributes this species of cultivation, so general throughout the West Indies, particularly at Cuba, to the partiality, which is shown in the United States for the large green coffee. According to this writer, the West India article is made inferior to the Mocha, merely to suit the North American market. In order to show how little difference there actually is between the two kinds, he notices the experiment of Mr. Miller who raised West Indian plants in English hot-houses and thus obtained grains superior to the best Mocha that could be procured in Great Britain.

The maximum quantity of pulped and dried coffee, furnished by one tree, may be stated at from six to eight pounds, but a fair average will not exceed one and a half pounds. Trees, raised from young plants, furnish, at the fourth year, about seven hundred pounds per acre, and one negro is well able to take proper care of an acre and a half. The ground requires close weeding, in order, perhaps, to keep it warm and dry. Although the trees are capable of attaining the height of sixteen or eighteen feet, they are topped to about four or five for the convenience of picking: and by this treatment send out between thirty-six and forty bearing branches. They begin to yield fruit the third year but are not in full perfection until the fifth, and their age may then extend to thirty years. Old trees are, however, often cut down close to the ground, in order to give room to a vigorous shoot; but, in the end the soil, unless renovated, becomes so impoverished as to be nearly unfit for further cultivation. The fruit, which is the only useful part of the plant is a pulpy berry, resembling a cherry, and contains one or two coffee grains. When it assumes a blackish red color, and becomes shriveled, it is considered sufficiently ripe. At this period the Arabians, it is said, spread cloths under the trees and only collect those berries, which drop off, by shaking, but, in the West Indies, they are all hand picked, and this not unfrequently, before they are fully ripe, particularly when the negroes are hurried by their overseers. Some persons have been of opinion that this practice, more than soil and culture, has given rise to the difference in favor of Mocha coffee. The berries upon being collected, are, by some planters, stove-dried, by some bruised and sun-dried, and by others, the most numerous, dried with their pulp on them, by exposure to the sun for several weeks. By the last process, the pulp undergoes the acid fermentation without injuring the enclosed grains, and when the whole becomes quite dry, it is transferred to a mill, like our cider presses, where the husk is crushed and broken by the weight of heavy rollers and wheels. A fan subsequently separates the greater part of the chaff and the operation is completed by sieves and hand picking; the work, chiefly of old women and children.

It may appear useless trouble to notice the infusion prepared from the coffee berries, but the outline would be incomplete without something being said upon this item of domestic luxury; I will content myself by briefly observing:

1st. That the raw coffee should be round and small grained, free from dirt and of a light color. It should have no appearance of mouldiness, and be quite free from any strong smell. It should not be long kept in sacks with other provisions, as there is no substance more apt to obtain strong and disagreeable odours from the presence of its neighbours. Rum injures it; and Miller even goes so far as to state, that a few bags of pepper, on board a ship from India, upon one occasion, spoiled the whole cargo.

2nd. When the grains are large, flat and of a green color, they should be kept on hand, in a dry situation, a long time before use. Every West India planter knows this fact, although his interest too often induces him to send the article to market before it is old and dry enough.

3d. Roasting coffee is by far the most difficult operation of the house-keeper; when carried far enough, an aromatic oil, formed by the heat, forces itself out upon the surface of the grains, giving them a glossy appearance and an odour which is considered their perfection; yet too little roasting prevents the aroma from appearing, and too much completely volatilizes it, leaving nothing but a flat, bitter, taste. The heat should be strong and the operation shortened as much as possible, without burning the grains. The roaster should be close or well covered all the time, and, in order to improve the looks and flavor, a small piece of butter may be added to the coffee, while parching.

4th. When thus prepared, coffee may be preserved for use in large quantities, without losing much of its freshness, provided the vessels, containing it, be kept well covered.

5th. An infusion of coffee is better than a decoction, simply because the heat, in the last case, being stronger and more lasting drives off more of the aromatic oil. It is better, therefore, to grind the coffee *very fine*, and then to expose it, by means of a bag or strainer, to the action of boiling water than to boil it for any length of time. Heat, although unavoidable, injures the flavour, and the best coffee I remember to have tasted, was made by exposing the powder to a pressure of *cold* water; a teaspoonful of this extract, thrown into a cup of hot water was sufficient. It is not a bad method to allow the ground coffee to lie in cold water between meals, and then to prepare it by adding hot water. Just in proportion to the continuance of heat in this and the last operation, the fragrance disappears, and is replaced by a strong bitter taste, which, according to the experiments of Chenevix, depends upon the presence of tannin (resembling that in tan bark.) Roasting, besides forming this bitter substance, deprives the coffee of its nutritious qualities.

Strong coffee, by itself, may do very well as a medicine for the cure of asthma, &c.; and may even be preferred when very good, by many persons; but cream is the only adjuvant upon which we may rely to render indifferent, and especially *bitter* coffee, mild and palatable. With these remarks I shall pass to notice particulars of a different character.

Coffee, as a beverage, has actually become one of the necessaries of life, in warm climates. Its stimulating effects render it grateful to the debilitated stomach, and we, accordingly, find it taken after meals, or upon waking in the morning. The Italians, and even French, not unfrequently, promote its invigorating effects by the addition of cordials or brandy. But among the Turks and Arabians the practice is even more indispensable; for this article answers, to a great extent, as an antidote to the narcotic effects of opium. In the east, coffee is constantly exposed for sale in all the streets and at all times. Although the use of this drink is no where mentioned in the eastern tales or Arabian Nights Entertainments, coffee houses seem first to have been established at Persia, and were soon so much frequented as to become notorious for riot and debauchery. They gradually extended through Syria and Egypt, about the middle of the fifteenth century, and reached Constantinople in 1554. It is, indeed, remarkable, with what celerity such establishments extended through the East, and we can only find a probable cause for the fact in the state of society which renders general intercourse devoid of attraction, by the jealousy of the men and the strict seclusion of the women, and by practices, such as the use of opium, which enfeeble the mind. There seems to be so imperious a necessity for this beverage, that, at one time, in Constantinople, the mosques were almost wholly deserted for the coffee houses; and when, through motives of policy, religious interference had been resorted to, seditions of the most alarming character arose. The Dervises, fearing this neglect, declaimed against the use of coffee, from the Alcoran, which declares that *coal* is not of the number of things created by God for food; and forewarned the people that the prophet forbade it as a strong or intoxicating drink. Amurath 3d, even went so far as to order all the coffee houses to be shut. But these efforts were in vain. Coffee was drunk openly, and to a greater extent than before; so that the succeeding Emperor was compelled to announce that roasted coffee was not coal, and that Mahomet had no objection to its use. Similar attempts at its suppression in Egypt were followed by very alarming revolts.

The introduction of coffee among the French, may be dated at about 1672, at which period a coffee house was established at Paris by an Armenian.

In 1650 a Jew opened a coffee house at Oxford, which is, perhaps, the earliest period of such an establishment in England.

Effects of coffee.—It is not my wish to mention all the various opinions upon this subject, but merely to notice the effects of excess. Coffee has been styled an *intellectual* drink, and seems long to have been the favourite of scientific and literary persons; yet when first introduced into Europe, it was abused and strenuously opposed, even by the medical faculty.

Fontenelle's physician proscribed it as deleterious, but the poet very cogently reminded him, that twenty-four years had already passed since he first took the *poison*—and, as if to throw stronger censure upon the presumption of the doctors, Fate permitted this celebrated man to outlive *a century*. In 1708, much about the same period as the foregoing, a barber, named Farr, was in England presented by the Inquest of St. Dunstan's in the west, "for making and selling a sort of liquor, called coffee, to the great nuisance and prejudice of the neighbourhood." But, like tea and other *slow poisons*, coffee still recommended itself to the palate. It appears, unquestionably, to be a stimulating drink, particularly when taken strong and without milk or cream. For this reason, probably, Sir John Pringle considered it as the "best abater of the paroxysms of the periodic asthma" that he had ever seen.—The effects are lasting and very obvious upon persons of a nervous temperament. When unaccustomed to its use, "they often lose sleep entirely, or derive but little benefit from what remains. It often, also, occasions watchfulness and tremors, and its effects have even extended to cramps, anxiety, and difficulty of breathing. When taken in excess, it is said to augment the rapidity of the vital operations, without adding to their durability; in short, it may then be regarded as a stimulus without affording nourishment.

Substitutes for coffee.—Numerous articles have been recommended to the public for this purpose; but it must be confessed that they require a large seasoning of the imagination. All the world has tasted, a *puff*, at least, of Hunt's patent coffee.—About fifty years ago a deception was practised upon the Parisians by mixing ground and roasted acorns with the genuine coffee powder. Fashion led the way, and the individual who hit upon the lucky thought, is reported to have realized a fortune. Endeavours have often been since made in France, to discover a substitute for foreign coffee. M. Pajot Descharmes states, that the seeds of the *forest broom* answers this purpose exceedingly well, according to the opinion of a person who has used them for twelve years. It is also stated that in that part of Holland bordering upon Germany, these seeds have been substituted for coffee many years. In other parts of the Netherlands, the coffee is mixed with wild succory root, and so general is the practice, that this root has actually become an article of export from Liege. To the same part of the world we must attribute the sin of substituting and cultivating, for the purpose, certain beans or lupines. In this country, rye is extensively used, and, by *some judges*, has been pronounced equal to the imported coffee. Grape seeds, yellow water flag seeds, yellow potatoes, peas, beans, burdock, barley, sun flower seeds, beach nuts, almonds, salsify root, &c. have stood forth as *pretenders*.

The curious may try them all, but they will be found far inferior to the genuine article. N.

AGRICULTURAL SOCIETY.

The Eleventh Anniversary Meeting of the Fredericksburg Agricultural Society, was held at the Indian Queen Tavern on Friday the 27th November, 1829, and continued by adjournments until the evening of the following day.

The President and Vice President both being unavoidably absent, the meeting was organized by the appointment of

Capt. George Hamilton, President, pro tem.
And Dr. John Taylor, V. President, pro tem.

The following gentlemen were unanimously re-elected officers of the Society:

James M. Garnett, President.
John Taliaferro, of Hagley, Vice President.
Wm. F. Gray, Secretary and Treasurer.
John Chew, Assistant do. do.

Corresponding Committee.

Hon. John Taliaferro, of Hagley; John S. Welford, Wm. Bernard, Francis W. Taliaferro, Wm. F. Gray.

The following are among the resolutions adopted:—

Resolved, That at the future exhibitions of the society, a premium of $10 shall be offered for the best crop of wheat, grown on four contiguous acres of highland; and the same sum for the best crop, grown on four contiguous acres of low land.

Resolved, That at the future exhibitions of the society, a premium of $10 shall be offered for the best crop of hemp, grown on one acre of land—weight, quality and quantity to be considered.

Resolved, That no premium shall hereafter be awarded to any competitor for any crop, unless full and unqualified certificates be produced, both as to gathering and measuring the crop, and the survey of the land, which survey shall be done with a chain; and that the secretary shall prescribe some form for the certificates, which form shall be published along with the list of premiums.

Resolved, That the surveying of the land and measuring of the crop, shall both be proved by the same person or persons, who must be uninterested in the crop.

George Hamilton, *President*, pro tem.
Wm. F. Gray, *Sec'y.*

THE SHOW.

The following is a list of the Premiums awarded by the several Committees of the Society.

First Day—*Stock, &c.*

For the best Stallion—a silver pitcher, of the value of $30, to *Thomas Carter*, Esq. of King William, for his Horse Ratler.

For the best Brood Mare—a Silver Mug, of the value of $15, to Major *Enoch Mason*, of Stafford, for a fine Black Mare.

For the best Colt or Filly—a Silver Cup, value of $10, to *Robert P. Waring*, Jr. of Essex, for a beautiful Bay Stud Colt, by Rob Roy.

For the best Bull—a Cup, of the value of $10, to *Samuel P. Forrer*, of Shenandoah.

For the best Milch Cow—a Silver Cream Cup, value $10, to Mr. *John Scott*, of Fredericksburg.

For the best Beef—a Silver Tumbler, value of $10, to Mr. *John Fox*, of Fauquier.

For the best fatted Work Ox—a Silver Tumbler, value of $10, to the same gentleman.—☞ Mr. Fox was the successful candidate for the same premium at the show in 1828.

For the best Ram—a Silver Cup, value $10, to Capt. *George Hamilton*, of Forest Hill, Spotsylvania.

For the best Ewe—a premium of $5, to the same gentleman.

For the best Boar—a premium of $5, to Mr. *Thos Jones*, of Stafford.

For the best Sow—a premium of $5, to Mr *George Rowe*, of Fredericksburg.

☞ There was no Mutton shewn.

There were several Agricultural Implements exhibited, professing to be improvements on those in common use; but the committee deemed them deficient in originality, or not superior to those already in use, and not entitled to the premiums.

CROPS.

A Silver Cup, value of $10, was awarded to *Wm. Bernard*, Esq of Mansfield, Spotsylvania, for the best crop of *highland* corn, grown on four contiguous acres.—Product, ten barrels, three bushels, two gallons, and three pints, of shelled corn per acre.

A Silver Cup, value of $10, was awarded to Mr. *James B. Skinker*, of Caroline, for the best crop of *lowland* corn (*Rappahannock bottom*,) grown on four contiguous acres.—Product, *seventeen* barrels, one peck and two quarts of shelled corn per acre.

A Silver Cup, value of $10, was awarded to *George W. Bassett*, Esq. for the best crop of *cotton*, grown on four contiguous acres.—Product *eleven hundred and twenty-nine and one quarter lbs. per acre.*

Second Day—*Domestic Manufactures.*

For the best Carpet—a Silver Cup, value of $10, was awarded to Mrs. *S. J. Forbes*, of Falmouth.

For the best pair of Blankets—a premium of $5, to Mrs. Col. *J. Slaughter*, of Culpeper—a very superior article. Culpeper still is unrivalled in the manufacture of blankets.

For the best Bed Tick—a premium of $5, to Mrs. *Thomas Wharton*, of Culpeper.

For the best Counterpane of Wool and Cotton—a premium of $5, to Mrs. *Wm. Bernard*, of Mansfield, Spotsylvania.

For the best Counterpane of Cotton—a premium of $5, to Mrs. *W. G. Chiles.*

For the best pair of Worsted Stockings—a premium of $2, to Miss *Bell*, of Culpeper.

For the best pair of Cotton Stockings—a premium of $2, to Miss *Shelton*, of Stafford.

For the best pair of Thread Stockings—a premium of $2, to Miss *Conyers* of Stafford.

For the best piece of Negro Clothing—a premium of $5, to Mrs. *G. W. Bassett*, of Spotsylvania.

For the best ten pounds of fresh Butter, prepared for the table—a premium of $5, to Mr. *Thos. Jones*, of Stafford. Mr. Jones is a constant attendant of our market, and his butter has long been uniformly distinguished for its excellence.

There being no *firkin butter* exhibited, the Committee awarded the premium offered for that article to Mrs. *Coalter*, of Chatham, Stafford, *for the second best 10 lbs. of fresh Butter, prepared for the table*, which was so good as to create a doubt with some good judges, between it and that deemed No. 1; it was very neatly prepared.

For the best Cheese—a premium of $5, to Mrs. *Margaret Holloway*, of Stafford, only two specimens offered.

Discretionary Premiums.

Of the great variety of beautiful articles exhibited, which the Committee deems worthy of marked approbation, but for which the regular premiums are inadequate, they take pleasure in distinguishing the following, by making them the complimentary award of $2.50 each:

To Mrs. *F. Scott*, of Fredericksburg, for a beautifully wrought Cotton Bed Quilt.

To Mrs. *J. Hooe*, of Prince William, for a Woollen Counterpane.

To Miss *Phillips*, of Stafford, for a Cotton Counterpane.

To Mrs. *M. Bibb*, for a superior piece of Cassinet.

To Mrs. *P. C. Waller*, of Spotsylvania, for ten skeins of sewing Silk, made from worms raised by her.

To Mrs. *S. H. Skinker*, of Fauquier, for a piece of Plaid.

The Committee remark:

"Mrs. *J. S. Taliaferro*, of King George, deserves the highest commendation for a very large exhibition of Domestic Manufactures, consisting of *twenty Counterpanes*, Flannels, &c. shewing a degree of industry and skill beyond praise.

"A very beautiful Scarf, Dress and Cap, worked by herself, was exhibited by Mrs. *Thos. L Lomax*.

"Miss *V. Lunsford*, of Stafford, exhibited a remarkably fine and good pair of ribbed Socks.

"Miss *A. Hay*, a little girl of only *four years of age*, exhibited a pair of woollen Socks, knit by herself, for which she deserves great credit."

PREMIUM CORN CROP.

[It was stated in the Farmer last week, that the Editor of the Delaware Advertiser had awarded $20 to Dr. Joseph E. Muse of Cambridge, Md. according to a proposition he made in the spring, to give that premium to any subscriber who should produce the greatest quantity of corn from one acre. Dr. Muse is an enterprising and zealous agriculturist, and has taken lately several premiums by the extraordinary crops that he has raised upon his farm. We publish below his statement of the mode which he pursues in planting and cultivating Indian corn, and subjoin the certificates of the premium crop.]

Cambridge, Eastern Shore, Md.
October 9, 1829.

Within you have a statement of the product of my acre of corn, made under the terms proposed by you. I would have much preferred a larger quantity of land. I have about 18 acres in the same square, which I think when gathered, will yield nearly in the same proportion.

As to the method of cultivation, proposed by you to be communicated, and the manure used, I will refer you, for brevity's sake, to the 9th vol. p. 257 and 8, of the American Farmer, published in Baltimore—the mode described there, in my letter, as practised by me then, is the same as the present, except that *then*, I left, generally, two stalks together, but now, I left only one.—The manure used by me on the present occasion was a compost of cotton seed, rotted the preceding winter, and mixed with all the soot and ashes I could obtain. This I strewed heavily in the drills; I will inform you, when it is gathered, how much the whole square has produced.

Yours, very respectfully,

Joseph E. Muse.

Oct. 7, 1829. I certify that I have carefully laid off, marked and bounded, for Joseph E. Muse of Dorchester county, Maryland, one acre of land, on his Appleby farm, growing corn.

Sam'l Lecompte.

State of Maryland, Dorchester County, to wit:

On this 7th day of October 1829, personally appeared Samuel Lecompe, Esq. before me, the subscriber, and made oath, that what is contained in the above certificate is the truth, to the best of his knowledge.

James Houston.

Oct. 7, 1829. I certify that from the above acre, measured, marked and bounded in my presence, by Samuel Lecompte, Esq. I gathered Indian corn, the product of this year, and of the said acre, amounting to the quantity of one hundred bushels, one gallon, two quarts, and one pint of shelled corn.

Test, *James Houston.* Henry Jenkins.

State of Maryland, Dorchester County, to wit:

On this 7th day of October, 1829, personally appeared Henry Jenkins, before me the subscriber, and made oath that what is contained in the above certificate is the truth, to the best of his knowledge.

James Houston.

Maryland, Dorchester County, to wit:

I hereby certify to all manner of persons to whom it doth or may concern, that James Houston, gentleman, before whom the within probate was taken and whose name is thereto subscribed, was at the time of taking said probate and subscribing the same, a justice of the peace for Dorchester county, duly commissioned and sworn.

(Seal.) In testimony whereof I have hereunto set my hand and affixed the public seal of my office this 14th day of October, 1829.

E. Richardson, *Clk.*

(From the New England Farmer.)

CULTURE OF POTATOES.

Mr. Fessenden—I have been a constant reader of your valuable paper for many years, and occasionally have thought I could add a little from my stock of observations that would be useful; but diffidence has hitherto prevented my contributions; a diffidence growing out of conscious want of a thorough knowledge of the subjects which have claimed my attention. But when I consider your readers somewhat like the classes in a monitorial school, and that I may consider myself as a monitor to some of the lower classes, I am induced to write a lesson, which you will use your discretion whether to present to the school or not.

Much has been said on the culture of potatoes, their quality, manner of rearing, new varieties, &c. but no one has recommended what I conceive to be the best method of planting and manuring them. My method has been for some years the following, after trying most of the plans of preparing seed and planting, treated of in the New England Farmer, *and deciding upon this as the best.* I spread all my manure on the ground after once ploughing it, then cross plough lightly to cover the manure, then furrow it three feet apart. In these furrows I place whole potatoes of full growth, from 18 to 20 inches apart, and cover them from 1½ to 2 inches deep, regardless of there being rows both ways. These furrows I draw horizontally on side hills, where the land is subject to drought, that they may catch and hold the occasional showers, till the water is absorbed by the earth. So when I hill potatoes, as it is called, I continue the hill the whole length of the row, in order to take advantage of the rains; if furrowed in an opposite manner the water runs off, and much is lost to the crop. On wet land, where water is liable to stand to the damage of the crop, I row up and down the hill or declivity, to facilitate the draining.

I am convinced that spreading the manure doubles the advantage of it; that is, one half of the quantity, and of the same quality will produce as much benefit as double the quantity put into the hills with the seed, as is the usual method.

I would not proceed to give any reason for this, if I thought my method would be tried, but from the obstinate adherence of some of my acquaintances to their old customs, who would regard my opinions on some subjects, but cannot think any improvement in planting or manuring potatoes can be discovered by the present generation; which would imply that their fathers had all knowledge on the simple subject of planting and manuring potatoes.

I have observed the roots on which potatoes grew, spread from two to four feet in every direction from the toper main stalk, consequently drew nutriment from the soil of a surface from four to eight feet diameter, and in the old way of planting, the roots may be traced from hill to hill, or the advantage of manure would be still smaller than it has been. And this, I think, accounts for potatoes growing better when they were planted nearer together; which, I think, must have been observed; and that seeding heavily, and manuring largely, and planting far apart, potatoes did not do as well, which has been attributed to their not shading the ground to retain moisture. I have observed also, that in places where manure was plentifully used in the hills and it became quite dry, bordering on a drought, that on digging the potatoes the manure was found dry and mouldy, and in some instances changed to a hard cake; in others I have found it moist, and little roots in it; such, perhaps, as came from the neighboring hills; and seldom ever any large ones, or potatoes imbedded in the manure. It is apparent to every one of much reflection, that manure must be dissolved and prepared by dilution before plants can take it up as food for their growth; when it is spread, we never find it in digging the potatoes; it has been dissolved and taken up by the plants, or transfused into the earth. I have found in all cases that my potatoes planted on manure, or in manure, or under it, in hills less in number, and less in size, were of a poorer quality than those planted as above described, where the manure was spread. I have tried the experiment in the same field, with the same kind of seed, and the same quantity of manure, and seen the parallel as near as I could. Whether potatoes laying so near, or in contact with the manure, gives them a strong taste, I leave for the higher classes of the school to decide. Moisture is necessary to dilute and prepare manure for food to plants, which, if put into the ground in shovels full, often dries up, and resists the moisture through the summer, and is wasted by evaporation, &c. I am therefore particular, when I spread mine, to cover it as soon as I can, to prevent evaporation.

I have compelled two experienced farmers, who learned of their fathers, and had planted potatoes before I was born, and are considered good farmers, to spread the manure on lands they took of me, as one of the conditions of the lease; both of whom reluctantly agreed to this condition, and both were convinced after trial, that spreading the manure saved much labour in planting, and made larger and better crops. These two farmers now preach and practice my doctrine, on planting potatoes, and as local preachers, have got some proselytes.

Respectfully, yours, &c. H. L. S.

Nov. 28, 1829.

(From the New England Farmer.)

SHELTERING FARM LANDS.

Mr. Russel—The article "Sheltering Farm Lands," published in your 19th No. from the American Farmer, delineates with correctness the important advantages of this branch of rural economy. To show to your readers the practicability and facility of sheltering their farms, I submit a statement of my personal experience in this business.

On the 28th of May, 1827, I repaired to the banks of the Hudson with an assistant, and collected a quantity of the seeds of the soft maple, (*acer rubrum,*) some species of the elm, (*ulmus,*) and of the button wood, (*platanus occidentalis,*) which were then falling, the latter of the preceding year's growth. They were planted the same day, very thick, in beds of mould. They immediately grew, and the plants attained some size that year. Last week I transplanted several of the maples, as ornamental trees, which were from ten to fourteen feet high. Some of the button-woods are ten feet, and the elms six and seven. This in thirty months from the planting of the seeds. Having fortunately left a belt of natural wood upon a part of the north and north-west borders of my farm, I resolved to continue it on the west. For this purpose, I set two hands to manure and plough a strip of sward, ten feet broad, adjoining the fence, and at ten proceeded with a third to take up young maples in the seed bed for planting it. We took up three hundred plants in a space less than six feet square, of four to eight feet high, and the same evening, with the aid of the two men employed at the plough, and another for two hours, had the whole planted in right order. The planting was performed in this manner—A line being drawn from, and parallel to the fence, a hole was dug with a grubbing hoe, at intervals of five feet. Eight feet from the fence, a second row was planted, corresponding with the first; and a third row was placed between the two, in a quincunx form, or in the intervals. Thus there is a space of about 4½ feet between the nearest trees. I purpose to plant potatoes next season, a hill between two trees, so that I can till with a plough between the rows. From the habits of this tree I have no doubt that in six years this belt will afford an ample screen, and in fifteen years an abundance of fuel; and as sprouts grow vigorously from the stump, I think the cuttings may be repeated every fifteen years thereafter. The expense thus far does not exceed $3.

J. BUEL.

Albany Nursery, Nov. 28, 1829.

Near Edinburgh a farmer who was troubled with rats, recently caught 400 by placing a large copper kettle in his corn loft, filling it about half full of water and strewing a thin sprinkling of chaff over it. By a few boards extending from the wall to the kettle the rats could jump among what they took to be a fine lot of grain, and died the death.

There is no cause of misery more fruitful than incurring expenses that we cannot afford.

HORTICULTURE.

GRAPE CUTTINGS.

The following remarks may be of service to those who are about planting grape cuttings. A gentleman of Connecticut, in writing to Mr. Cook, of Boston, observes:

"I know not whether the scions will correspond *in length* with your views in relation to the culture of the grape; **Parmentier** strenuously recommends the formation, if possible, of *three* sets of roots, if in order to attain this object, it should even be necessary to take up the vine after it has had one year's growth, and to place it deeper in the ground; and in the first instance, I believe, puts two or three eyes beneath the surface. I find my gardener, who has been a good deal accustomed to the cultivation of fruit, obstinate in his belief that the cuttings should be so placed, that the roots may not go deeply towards the subsoil. Accordingly I find that he has made the scions I send you, short. May I ask for the result of your experience on this subject?"

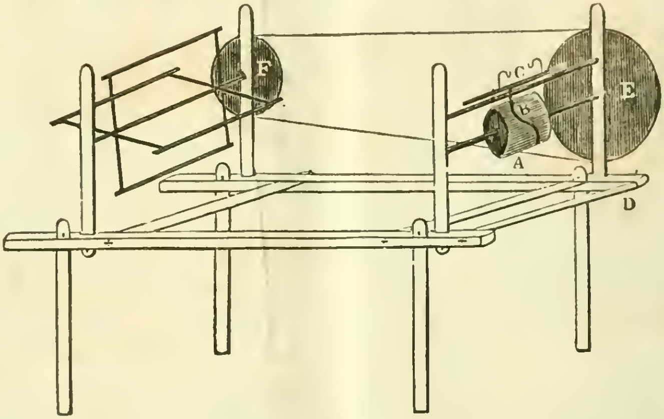
To which Mr. Cook replies:—With deference to the authority of Mr. **Parmentier**, I would take leave to observe, that the best grape vines I have ever seen, were raised from *one*, and *two* eyes. I believe the most experienced horticulturists in this vicinity pursue this course. I was instructed by one whose practical knowledge is generally and deservedly respected, and by no one more than myself. I know not whether to attribute to this mode of planting, the precocity of my vines; but one thing is certain—cuttings set by me in 1823, of 4, 5, and 6 eyes, bore fruit for the first time in 1828; while very many of two eyes, planted in 1826 and 1827, have produced fine bunches of fruit the past season. So far as my observations have extended, I am fully inclined to the belief, that two eyes are better than a greater number, to form fine roots, and a healthy and vigorous plant."

EVER BEARING STRAWBERRY.

We were presented, a few days ago, by our friend Mr. S. Iden, of Buckingham, with a plant of Alpine Strawberry, on which were growing several ripe and unripe strawberries. We understand from Mr. Iden, that he has a number of plants growing in his garden, which bear fruit constantly from the latter end of May until the frosts of autumn check their growth. The fruit is large and of a delightful flavour, and we have no hesitation in saying, if properly cultivated, would yield in as great abundance as our common kinds of garden strawberry. We believe this kind is not generally cultivated; perhaps from the fact that they are not generally known. We would recommend to our horticultural friends the propriety of setting out a few plants this fall, to see and try for themselves, for we think it is but necessary to have them introduced in our gardens to insure for them the preference. [*Boylston Intel.*

Mr. John Grigg, of Philadelphia, has now in press and will shortly publish, "An Essay on American Silk, and the best means of rendering it a source of individual and national wealth, by John D'Homergue and Peter S. Duponceau." The names of the gentlemen mentioned as the authors of this work, will insure confidence in its statements, and we cannot doubt that the public generally, will see in the subject something worthy of general attention. From a knowledge that public good is intended in the publication of the work rather than individual profit; and from a fixed belief that the desired ends will be promoted by a general circulation of the book, we venture to solicit the attention of our editorial brethren to the work, and request of them to give notice of its early appearance. [*U. S. Gazette.*

GIDEON B. SMITH'S IMPROVED SILK REEL.

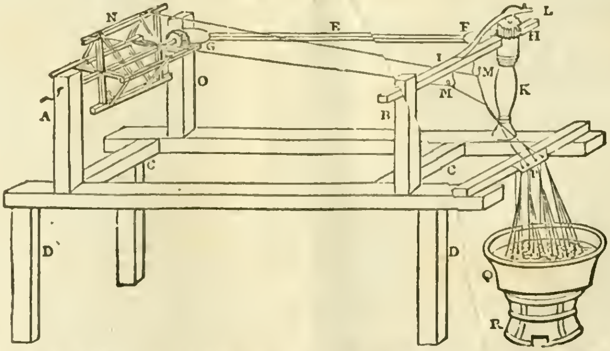


This is an improvement on the Silk Reel of Piedmont, the most approved reel of Europe. The improvement consists in the simplicity of the machinery, compared with that of the Piedmontese Reel, the operation of both being exactly the same. A, is a cylinder eight inches diameter and eight in length. B, a circular groove, half an inch deep, which has a sweep of six inches. To lay out this groove, a strip of paper six inches wide and of the exact length of the cylinder's circumference, is doubled, and with the compass a sweep is made from the middle of one end of the doubled paper to the edge and thence to the middle of the other end; the paper is then turned over and the same sweep made on the other side, in an opposite direction. The paper is then laid on the cylinder, and the groove marked upon it for cutting. Thus on each side of the cylinder the groove will form a semi circle meeting in the middle, and will thus cause a peculiar motion to the traversing bar, (C,) which it will cause to move slowly at the extremities of its course and rapidly in the centre, thus giving time for the threads to take hold of the rails of the reel on the out side of the skein before it begins to move back. C, the traversing bar, with the brass hooks through which the silk passes. D, a bar of the frame on which a brass plate is fixed, with small holes, for the silk to pass through, and which stands immediately over the vessel containing the cocoons. E, the drum, 18 inches diameter. F, the pully, 10 inches diameter. The size of the drum and pully precludes the possibility of the band slipping

The whole frame is five feet long, four high, and two wide in the clear, and the timber about two inches square. It is put together with keys, for the convenience of taking down and putting up.

The necessity of the machinery for producing the vibratory motion of the traversing bar, will be understood when it is stated, that, if the threads are laid on the rails as cotton is reeled they would adhere and become useless, as they could not be separated. The traversing bar causes them to be laid on in such a manner as to obviate this entirely. By a small handle near the rim of the drum, the reel is turned. With this reel the relative proportionate diameter of the drum and pully is necessary, to produce the proportionate movement of the traversing bar, and the revolution of the reel, as the bar must move back and forth five times, while the reel makes nine revolutions, and as the groove is formed, one revolution of the cylinder causes the bar to move out and back once. It has been thought advisable to accompany this drawing of the improved reel with one of the Italian reel that the improvement may be the more readily perceived.

PIEDMONTESE REEL.



The Piedmontese Reel, it will be perceived, requires four cog wheels, a crank, a carrier bar, and a connecting rod, all which is superseded by the cylinder in the improved reel. Orders for these reels will be received, and any information given by the inventor, Gideon B. Smith, Baltimore, Md. They can be made in a very neat form of good timber for $18, and can be packed for transportation in a box *All letters must be post paid.*

☞ The reel is not patented, but a free privilege is given by the inventor to all persons to make and use it.

Gideon B. Smith has a large supply of silkworm eggs of the best kinds, 10,000 of which he will send by mail, with ample instructions for making silk, to any person who shall enclose to him *five dollars;* the postage on the package will not be more than one dollar. The winter season being the only time when they can be sent by mail, no time should be lost in making application.

SILK WORMS.

The society of Domestic Economy in France have, at the suggestion of Count Lasteyrie, offered several premiums for the cultivation of mulberry trees in different parts of France where they are not now planted, for the purpose of feeding silk-worms. The Count asserts that silk-worms may be reared, and fine silk procured from them, in almost every part of France; and he states that a sample of silk produced in the North of France was pronounced by some Milanese manufacturers to be better than their own. The value of the raw silk used in France annually is 121 millions of francs, of which to the value of only 15 or 16 millions is of French production; so that more than 100 millions of francs are paid annually for foreign silk. It appears that in Flanders, and at Berlin, the cultivation of silk is carried on to a great extent and with decided success.

(From Loudon's Gardener's Magazine.)

WILMOT'S SUPERB STRAWBERRY.

Sir,—I have had several strawberries from two or three plants of Wilmot's Superb, of great size and weight; I, at least, have never met with any to equal them. The smallest of those which I have particularly noticed, measured 4 1-8 inches in circumference, and weighed upwards of half an ounce, troy weight; another measured six inches round, and four inches across, and weighed 5 dr. 1 sc. 6 gr.; and the one which I have gathered to day weighs 7 dr. 15 gr. It is, indeed, a beautiful specimen, and I only wish I could preserve it to look as it does now. Pray are these beautiful, though almost monstrous, productions common? or are they the result of something favorable in the season, which though not dry, has certainly not been inimical either to flowers or fruit here? and I must mention in particular, that I have had several perfectly beautiful and well opening yellow roses, an indulgence I never had until this year; for though former seasons have held out abundant promises, they have never until now been fulfilled.—*J. M. White Leaf, near Risborough, July* 6, 1829.

Wilmot's Superb, in common with most other strawberries, has attained a larger size this season than usual, for the reasons assigned by our correspondent. We have heard of none larger than his largest, unless it be that alluded to in the following extract from the Coventry Mercury, July 5:—"Amongst the strawberries exhibited at Hereford Horticultural show, on Friday, was a plate of Wilmot's Superb, one of which measured 7 inches in circumference, and weighed 1¼ ounces avoirdupois."—*Cond.*

We have seen an outline of a Wilmot's Superb, exhibited at the Bristol Horticultural Society, which measured two inches across, and in looking over the article Provincial Societies, some other large ones will be found noticed.—*Cond.*

Avoid all harshness in behaviour; treat every one with that courtesy which springs from a mild and gentle heart.

INTERNAL IMPROVEMENT.

STEAM CARRIAGES.

One of the great recommendations of this species of conveyance, will be its cheapness. It is expected that goods will be carried from Manchester to Liverpool for less than 5s. per ton. Men, of course, cannot be packed like bales of cotton; but let us allow them five times the space, and suppose that the charge is in proportion. Now, since twelve passengers, with their luggage, are reckoned equal to a ton in the mails, it follows, that a place in the steam coach from Manchester to Liverpool should cost the twelfth part of 25s., or 2s. We may arrive at the same result by another process. It may be inferred from one of the experiments, that the Novelty would carry fifty passengers, from the one town to the other, at the rate of twenty miles an hour, and would, of course, yield the proprietors the sum of 5*l* by an hour and an half's work. Six trips a day, performed at this rate, would produce 30*l*.; which we conceive would make the conveyance of passengers a very profitable branch of trade. As the railway company will have a monopoly, they may probably charge more at first; but, when railway carriage is subjected, like other branches of business, to the law of competition, we imagine the terms will not be higher than we have stated. Let us now take the speed and the cheapness together, and see what changes this new mode of conveyance is likely to produce, when railways are made along all our great thoroughfares. Let us suppose the speed to be twenty miles an hour, and the expense 1s. for fifteen miles of road; and the fares by ordinary stage coaches about 4d per mile. The journey from London to York, by the mail, costs, at present, about 3*l*., and occupies twenty-three hours By the steam coach it will be accomplished in ten hours, at an expense of 14s.! The saving of money and time will be as great in the case of Liverpool and Manchester, which are at nearly the same distance from the metropolis. A Leeds or Manchester manufacturer may take an early breakfast in his own house at seven, dine in London at five, and transact business that night or next morning, and reach his home on the following evening, while a two pound note will cover his whole expenses! The journey from Manchester to Liverpool, or from Liverpool to Manchester, (thirty-one miles,) will be performed at an expense of 2s., in one hour and a half; or, as some already anticipate, in one hour. Now, an active pedestrian in the metropolis will spend two hours in going from Grosvenor square to Wapping; or, with the luxury of a hackney coach, he may go in one hour at an expense of 7s. Thus, by the admirable invention of steam carriages, Liverpool and Manchester will be brought nearer to one another in a moral, social and commercial sense, than the extremities of London now are. If this be not absolutely annihilating time and space, it is abridging both in a wonderful degree. Within a few years after steam navigation was introduced on the Clyde, the intercourse between Glasgow and Greenock, according to Mr. Cleland, was increased tenfold. The expense in this case was reduced about two thirds, but the time was not materially shortened. What a vast addition, then, would be made to the present amount of internal intercourse when the expense is reduced three fourths, and the time two thirds; and when the mode of conveyance is as superior in comfort to our present stage coaches, as the coach is to the common cart! To all active classes, to a person especially who is at the head of an extensive business, time is of still more value than money. If the journey from Edinburgh to Manchester could be performed in ten hours, at an expense of 14s. to 15s., every merchant knows that the amount of travelling between the two places would increase, not ten, but fifty fold! Journeys for pleasure would multiply in as great a proportion as those for business; and we are satisfied, that when we enjoy the advantage of railways and locomotive engines on all our great thoroughfares, we shall have, on a moderate estimate, twenty or thirty times as much internal intercourse as we have at present. When the carriage of goods, which is now about 9d. or 10d a ton per mile by land, is reduced to 2d; and when, in point of speed, one day does the work of four, the heaviest commodities, such as corn, potatoes, coals, will bear the expense of carriage for a hundred miles. The result of this will be, that the expense of living in great towns will be reduced, and the price of raw produce will rise in remote parts of the country. The facility, celerity and cheapness of internal intercourse, contribute more probably to the advancement of civilization than all other circumstances put together. [*Edinburgh Scotsman.*

HORSE POWER.

We every day hear of steam boats and manufactories having engines of perhaps twenty, thirty, or forty horse power, but as there probably may be among our readers some who do not precisely comprehend what that power means, we beg leave to explain the subject as it is now understood. The power of a horse is considered to be that which will elevate a weight of 33,000 pounds, (another estimate reduces this to only 22,000 pounds raised one foot high in a minute equivalent to 1000 pounds two and a half miles per hour,) the height of one foot in a minute of time, equal to about 90 pounds, at the rate of four miles per hour. This is a force greater than that exerted by a common cart horse, which is not estimated at more than 70 pounds; that is to say, that a horse harnessed to a cart weighing with its load 40 cwt. or two tons, and drawing on a level road at the rate of four miles an hour, makes use of the same force as if his traces, instead of being fastened to a cart, were passed over a pulley, and lifted perpendicularly a weight of 70 pounds. The expression of the power of the steam engine in horses' powers is consequently more practical than scientific. It was introduced when steam engines first began to supersede horse mills, when the manufacturer naturally inquired, how many horses a steam engine would dispense with.—[*London paper.*

LADIES' DEPARTMENT.

(From the Journal of Health.)

WET FEET.

What a crowd of painful recollections are conjured up in the mind of a physician, of any age and experience, by the words wet feet. The child which had been playing about in the morning in all its infantile loveliness and vivacity, is seized at night with croup from wet feet, and in a day or two is a corpse. The youthful form of female beauty, which a few months before gladdened the eyes of every beholder, is now wasting in slow remediless decay. What was the origin of her malady? Wet feet. Let us hope that the exposure was incurred in a visit of mercy to a helpless widow or distressed orphan. Whence come the lingering disease, the pain and suffering of that fond mother? Still the same response: getting her feet wet, while providing suitable winter's clothing for her children—as if tenderness for her offspring justified her dispensing with all the rules of prudence for herself. Thus we might continue the melancholy list of diseases, at best harassing and alarming, often fatal, to which the heedlessness of youth, the pride of manhood, or the avarice of old age, are voluntary and causelessly exposed by a neglect of one lesson of every day's experience.

It needs no medical lore or laboured reasoning to show the great influence which impressions on the feet exert over the rest of the body at large. The real martyrdom produced by tickling them, and the cruel punishment of the bastinado, are sensible evidences of their exquisite delicacy of feeling. Of this fact we have more pleasurable experience in the glow diffused through the whole system, when, chilled and shivering, we hold them for a while to the fire, or when, during the prevalence of the dog star we immerse them in cold water to allay the heat which is then coursing through our veins. Are the internal organs of the body a prey to wasting inflammation, as in the hectic fever of consumption, there is a sensation of burning heat in the feet. Is the body feeble and the stomach unable to perform its digestive functions, these parts are habitually cold. In both health and disease there is a constant sympathy between the feet and the different organs of the body. Whatever be the weak part, it suffers with unfailing certainty from the impressions of cold and moisture on the feet.

No matter whether the tendency be to sick-headache, or sore throat, hoarseness and cough—pain of the stomach, or rheumatism, or gout,—severally and all they will be brought on by getting the feet wet, or at times even by these parts being long chilled, from standing on cold ground or pavement. And who, it might be asked, are the chief victims to such exposures? Not the traveller caught in the storm, or the man of business, or even the day-labourer, who cannot always watch the appearance of the clouds and pick their steps with an especial avoidance of a muddy soil, or wet streets—O no!—we must look for the largest number of sufferers among the rich, the fair and the lovely of the land, those who need only walk abroad when invited by the fair blue sky and shining sun, or who, if pleasure calls at other seasons, have all the means of protection against the elemental changes, which wealth can command, of ingenuity and labour. They it is who neglect suitable protection for their feet, and brave the snow and rain with such a frail covering as would make the strong man tremble for his own health, were he to be equally daring.

At a season like the present it would seem to be a matter of gratulation, that shoes and boots can every where be obtained of such materials as to preserve the feet dry and warm. Leather of various kinds, firm, or pliable and soft, is at the shortest warning made to assume every variety of shape and figure, called for by convenience or fashion. But we mistake,—fashion, that despotic destroyer of comfort, and too often a sworn foe to health, will not allow the feet of a lady fair to be incased in leather. She must wear, forsooth, cloth shoes with a thin leather sole, and even this latter is barely conceded. A covering for the feet never originally intended to be seen beyond the chamber or the parlour, is that now adopted for street parade and travel; and they whose cheeks we would not that the winds of heaven should visit too roughly, brave in prunella the extremes of cold and moisture, and offer themselves as willing victims to all the sufferings of the shivering ague, catarrh, and pains rheumatic. Tell them of a wiser course, argue with some on their duties, as mothers and as wives, to preserve their health—with others as daughters of beauty who are risking by approaching disease the loss of their loveliness, and they will reply, that they cannot wear those horrid large shoes—that the leather does not fit so nicely on the feet, and that India rubber shoes are frightful. They do not reflect that beauty consists in the fitness and harmony of things, and that we cannot associate it with the ideas of suffering and disease. The light drapery so gracefully and elegantly arranged as to exhibit without obtruding her figure, is worthy of all admiration in a Grecian nymph, under a Grecian sky, and when its bearer is warmed by a southern sun. The muslin robe of one of our beauties of the ball-room is tasteful and appropriate when lights and music are additions to the scene—but could we preserve our admiration for the Grecian nymph or the modern belle, if in these costumes they were seen walking in the streets mid sleet and wind? Pity they would assuredly command—but will a female be content with the offering which any beggar is sure of receiving?—We have gazed on the finest productions of the chisel and the pencil—we have studied beauty with the admiration of a lover, and the purposes of an artist, and we do assure our female readers that however much we may admire a small and finely turned foot when seen tripping through the mazes of the dance, we cannot look upon it with a pleased eye, unprotected by suitable covering in a winter's day. This covering is not prunella or that most flimsy stuff satirically called everlasting.

But how, conceding all the beauty claimed by its admirers to an exhibition of small feet, in neat tight shoes, can we receive this as a substitute for clear complexion, brilliant lustre of the eye, and the mild smile of content, all lost by repeated attacks of a cold, as the coming on of dyspepsia and sick-headache, the consequences of wet and cold feet.

Custom, it is alleged by some, renders persons thus exposed less liable to suffer. But the custom of occasionally walking out in thin cloth shoes, which are inadequate covering for the feet, is a very different thing from the habit of constant exposure of these parts to cold and moisture. If the sandal were habitually worn, and the foot in a great measure exposed to the air, custom might then be adduced as an argument against increased precautions. It is idle to talk of females accustoming themselves to having their feet chilled, damp, or wet an hour or two in the streets during the day, when for the remainder of this period they take the greatest pains to have them dry and warm, by toasting them, perhaps for hours, before a large fire.

MISCELLANEOUS.

(From the Columbia Telescope.)

COTTON CORDAGE.

Copy of a letter from Gen. D. R. Williams to the Secretary of the Navy.

Society Hill, 23d Sept. 1829.

To the Secretary of the Navy:

I ask leave with this, to present you a small sample of cotton cordage made here, for *bale rope.*

A pound weight of it makes many more feet in *length* than hemp cordage of the same size; it is cheaper at twenty-five cents a pound than that of hemp at 12½ cents, for the particular purpose for which it is manufactured—a comparison of prices with tarred cordage will of course be much more in its favor. I think you will admit that it is a beautiful piece of cordage. If you shall see proper to test its *strength* with new hemp rope, you will probably find it to be weaker at first, but after both have been so long exposed to the weather as to render that made of hemp useless, that of cotton will probably be still good as cordage.

Cotton fishing lines have been found to be more durable than any other, both in salt and fresh water; in the form of twine, wrought into seines, and used in our rivers, it is alike superior. Coarse shoes made of it, and subject to the greatest exposure, are much more durable than those made with flax thread; indeed every domestic test proves cotton to be more durable than either flax or hemp. Perhaps, it stretches too much to be trusted for standing rigging; but for running, and especially for light sails, it may possibly prove superior to cordage made of any other substance. I have found it to last longer when served with a coat of warm tar.

How has it happened that cotton cordage has not yet been tried, even among our river craft? Is it not wholly owing to a general opinion that it is much more costly? Such I confess was mine, until a gentleman, judging more correctly, ordered three hundred weight of bale rope to be made of cotton yarns; from which it has been discovered to be the cheapest cordage with which we can rope our cotton bales.

If, contrary to my hopes, it shall be judged unfit for rigging of any kind, there is a great variety of other purposes on ship board for which small cords are used, and to which it may be advantageously applied.

I am too well satisfied that your private wishes, not less than your public duties, prompt you to the use of this great, though depressed staple of our common country, to suppose it necessary to ask the patronage of your department for it.

Yours, respectfully, David R. Williams.

—

Navy Department, Oct. 6, 1829.

Sir,—I have much pleasure in acknowledging the receipt of your letter of the 23d ult. together with a small sample of cotton cordage made for "bale rope."

That you may be fully possessed of the views of the department in relation to this great staple of our country for naval purposes, I herewith transmit you a pamphlet containing a correspondence on the use of cotton canvass for the sails of ships of war or merchant vessels, &c.

The sample you have sent me, I frankly acknowledge to be a handsome piece of cordage; and the information you have communicated, in relation to its strength, durability and cost, in comparison with the same article made of hemp, is very acceptable.

A fair experiment shall be made of cotton rope, for such parts of the rigging and outfits of a ship, as may appear most suitable, from the knowledge at present possessed of its qualities. I am, very respectfully, your ob'd't servant, John Branch.

The Hon. David R. Williams, Society Hill, S. C.

Fisheries on the Labrador Coast.

The following is a statement of the fisheries on the Labrador, for the year 1829, from the best means of information obtainable on the coast; given in the Quebec Star.

	vessels.	men.	fish cwt.	oil hhds.
From the U. States,	1,500	15,000	1,100,000	11,000
From Newfoundland,	400	4,000	350,000	3,500
From Nova Scotia,	100	800	70,000	700
England, Jersey, &c.	80	4,000	240,000	2,400
Lower Canada,	8	150	5,000	50
New Brunswick, Magdelaine islands, &c.	20	160	8,000	80
Total,	2,108	24,110	1,773,000	17,730

Value of the above at a low estimate.

2,000,000	cwt. of fish	a 10s.	£1,000,000
4,500	tons of cod fish oil,	a £20	90,000
3,000	tierces salmon,	a 4	12,000
1,000	hhds. of seal oil,	a 5	5,000
10,000	seal skins,		1,000
	furs, &c.		6,000
			£1,114,000

A gentleman at Washington has written, that, "he believes the leaves of every tree subject to the operations of early frosts and meridian suns, assume that hue which the bark is calculated to give to the dye." [*N. E. Farmer.*

["Soft maple" bark makes excellent *ink*, though the leaves become red in autumn!]

Fame feeds her votaries with air, and often pulls down their houses to build their monuments.

THE FARMER.

BALTIMORE, FRIDAY, DECEMBER 18, 1829.

☞ **GENERAL POST OFFICE EXPRESSES.**—Whilst the astonishing speed with which the President's Message was disseminated by the Postmaster General, has been the subject of universal admiration at home, and unequalled any where, except by telegraph in Europe; some have been at a loss for the *necessity* of the measure, and in that too prevalent spirit of fault finding, which complains of the delay of slow, and is alarmed at the danger of swift motion; some have demanded in a querulous tone, on this occasion, *cui bono?* for what end such rapidity? The answer is obvious.

The Postmaster General is a member of the President's Cabinet, high in his confidence, and as such, was acquainted, it is fair to presume, with the topicks that would constitute his message. He probably apprehended the effect upon the stock of the Bank of the United States, which would be produced by the passage in regard to that institution; and hence with prudence and forecast, whilst the secret purpose was kept faithfully locked up in his own bosom; he contrived the means through his well appointed agents, to leave all private expresses far behind, and as if upon the wings of the wind, to spread the message fairly and publickly through all the commercial and stock holding communities and large cities in the Union. To be prepared for such exigencies, he has reserved the means in his important contracts,—and here was an occasion when, if what is said be true, of the effect of the message upon the price of bank stock, (aided by a too morbid spirit of speculation,) had that message been disseminated at the ordinary mail speed, private expresses would have far out stripped it, and thousands upon thousands would have been made and lost; not as the result of fair, legitimate and regular dealing; but by, we may say the surreptitious means of secret knowledge on one part, and unsuspicious ignorance on the other—in short, by an over reaching nigh akin to swindling—when such may be the consequence of an executive act, in the conscientious discharge of his duties, he turns to the head of the Post Office Department, to anticipate and prevent it; and the country knows how well Mr. Barry, by the aid of his efficient contractors has achieved this important service.

We regret not to have at hand the means of presenting our readers with a detailed view of the progress of the message throughout all the great routes to Portland, Maine, St. Louis, and New Orleans—there is enough, however, in the following to shew, that the contractors have accomplished what it would have been supposed could only be effected by miraculous agency.

If, previous to the battle of New Orleans, and on various occasions during the late war, such energy and despatch could have been employed in hastening advertisements of danger and the means of defence, to assailable points, how much loss of life and treasure might have been saved.

In this city, hundreds were waiting the arrival of the express, but the number was small to what it would have been, from the impression that it could not possibly be here so soon by many minutes.—At a few minutes past two, McCracken, who had volunteered for the whole distance, came flying in at the head of the town, and the next minute he was at the stage office; performing the whole route in one hour and forty-two minutes, as he left Washington at twenty-five minutes after twelve. There were eight horses provided for him on the road, to be used as occasion might demand, and to adopt his own phrase he "used them all up;" we were struck with his good tact in coming full speed to the very goal, and then with admirable strength and dexterity, bringing his nag to a dead stand still without loss of a second. It is fair to allow him five minutes for the bad condition of one horse, and another proving very unruly, bolting twice and once falling in a ditch.

We always feel disposed on these occasions to proclaim the names of the agents who are employed to *do the work*—for after all it is on them we must depend for *execution*. The labourer is worthy, not only of hire, but of all the fame to be acquired by *acting well his part*, however humble his sphere may be.

GREAT EASTERN ROUTE.

Express left Washington at 12h. 25m. P. M. 8th December, 1829—

Arrived at Baltimore,	36 miles,	a 2h. 7m.	*Time* 1h. 42m.
Arrived at Phila.	100 ,,	a 9 P. M.	6h. 53m.
Arrived at N. York,	100 ,,	a 3 A. M. Wed.	6h. 00m.
Arrived at Boston,	208 ,,	a 7 P. M. do.	16h. 25m.
Arrived at Portland	118 ,,	a 2 A. M. Thu.	7h. 00m.

From Washington to Portland in Maine, distance, by Post Office books, 554 miles, 38h. 00m.

GREAT WESTERN ROUTE.

Arrived at Fredericktown, 44 miles, a 3h. 20m.	2h. 55m.
at Hagerstown, 26 miles, a 5h. 17m.	1h. 57m.
at Wheeling, 200 a 9 30, A. M. Wed.	16h. 17m.
at Columbus, O. 130 miles, a 10h. 45m P. M. Wednesday	13h. 15m.

From Washington to Columbus 400 miles, much of the road bad and heavy, in 34h. 24m.

GREAT SOUTHERN ROUTE.

Arrived at Richmond, at 12 P. M. 123 miles,	11h. 35m.
at Raleigh, 162 miles in	12h. 10m.

From Washington to Raleigh, 285 miles, in 23h. 45m.

Albany, 398 miles, the message was received, printed and distributed in less than 43 hours.

☞ **PATENT IMPLEMENTS, &c.**—In the course of our Editorial experience, there has been no item that has caused us more trouble and vexation than the subject of patent implements—grater cider mills, threshing machines, corn planters, &c.—all excellent machines, no doubt; but so hampered by their patent rights as to be nearly unavailable to the public. The patentees being anxious to realize the full amount of the value of the invention at once, sell rights for counties, cities and states, while the purchasers of these rights can only sell machines to persons living within the bounds embraced by their sub-patents; and as but few of these sub-patents are ever taken, persons living without their bounds cannot obtain the machines, and are thus tantalized by the descriptions and accounts of their performances. It does appear to us that patentees would realize a much greater profit from their inventions, by appointing agents in the principal cities for the erection and disposal of their machines, receiving from them a fee for each machine sold, and allowing them to sell to any and every applicant, let his residence be where it will. By this means they would realize all the advantage of their invention, the agents would run no risk of loss, and the public at large could avail of the improvements; while we should be able to give definite information and would take pleasure in commending them to the attention of our agricultural readers, and this too without the fear of vexation to our readers or ourselves.

As an illustration of these remarks we may adduce the fact, that there are two machines now in Baltimore, that appear to be very useful, and would save much manual labour to farmers; which are not available to the public. One of them we have already taken some notice of, (Warren's Threshing Machine,) and the other, (a Corn Planting Machine,) we wish to recommend. The proprietor of the threshing machine, will do nothing but sell rights to supply specified territory, and as no one house could with propriety invest in one article so large a sum as is demanded, it is not likely that the public at large will be able to get them. The same remarks apply to the corn planter. As we think highly of these machines, should we be enabled by the patentees to refer specifically to some person or house where they can be obtained by the public at large, we shall take pleasure in making known their merits more particularly. In the mean time, we beg our readers to understand that all the information we possess on the subject is given in any notice we may take of things of this kind, and beg them for further information to address the patentees direct. The address of the patentee of the threshing machine is Edmund Warren, care of Thomas R. Clark, 151 Canal-street, New York.

☞ "A SUBSCRIBER" suggests, what seems probable, that the writer of the interesting essay on the domestic ox, in giving the weight of short horn cattle at twenty-one hundred pounds the *fore* quarters, meant to write *four* instead of *fore* quarters. The net weight of the four quarters of Columbus was 2090 pounds.

LATEST FOREIGN NEWS.

The last intelligence from Europe is from London, to the 9th, and Liverpool to the 10th November.

The floods in Scotland.—Returns have been made of the losses sustained by the floods, in Inverness and Morayshires, which amount to nearly £50,000. Of that sum the injury sustained by the Duke of Gordon, the Earl of Seafield, and their tenants, amount to more than £37,000.

Retirement of the Grand Duke Constantine.—The *Correspondent* of Hamburgh states that the report is spread at Mayence, that a foreign Prince is about to purchase a large estate in the Rhenish provinces, and establish there his future residence. It is added that the climate of the northern countries, which he has inhabited until now, is little favorable to the delicate health of his wife, and that this consideration has decided the Prince to renounce the active functions he has hitherto exercised (as Viceroy of Poland,) in order that he may enjoy all the sweetness of a private life in the bosom of his family.

The news received in Vienna, by private correspondence from Rumelia, Bulgaria, and Bosnia, represent these provinces under the most gloomy aspect. In Bulgaria and in Rumelia, the presence of the Russians prevents any anarchical explosion; but in Bosnia, the Sultan's authority is hardly respected, since his despotic power has ceased to be an object of terror.

Commerce and all the different links of society seem to be paralysed. Grief breaks out even in the apathy of the Ottomans, the bazaars and coffee houses are quite deserted; the mosques alone are filled with elderly men; and the young Turks appear generally disposed to emigrate into Asia.

The Christians are not without their portion of anxiety; they seem to fear a dreadful re-action after the departure of the Russians. It is not from Government that they expect any rigorous measures, but from the Turkish populace, because they have given very unequivocal marks of their attachment to the Russians. In fact, in every part of European Turkey the prospects for futurity are all alarming, and the moment when the Russian army is to leave the invaded territory will probably be the signal for the dissolution of the whole body, and the Sultan, with all his energy, will not be capable of preventing it.

A Telegraph despatch, reached Paris on the 1st of November, stating that the blockade of the Dardanelles was raised on the 30th September.

An extract from the Journal du Commerce discloses a fact hitherto little noticed in this country—viz: that in France the price of wheat is rapidly advancing. The rise in the average during the month of October has been 1f. 47c., and it is now within 21c. as high as it was at this period of last year.

This is the cause, without doubt, of the demand for fine wheat in the north of Europe.

An ordinance of the King, of the 10th of October, regulates the distribution of the vote of credit of 126,845,250 francs, granted by the law of the 2d of Aug. 1829, for the ordinary expenses of the war department during the year 1830

The treaty between France and Hayti, has been ratified, the independence of the Republic entirely acknowledged, and a commercial intercourse established on the basis of perfect reciprocity. The preparations for an expedition against Algiers are in active progress. It is intended to bombard the town with bombs and Congreve rockets.

From the London New Price Current of Nov 6.

TOBACCO.—The sales of tobacco this week are confined to small parcels; there is no alteration in the prices.

There was no alteration in the London corn market on the 9th of November in the prices of grain

Liverpool, Nov. 9.

The sales of cotton last week were not extensive, 13,340 bales of all sorts having found buyers, including 300 Sea Island at 11 a 16d 30 stained 6 3-8 a 9d; 4360 upland, 5¼ a 6 3-8d; 2280 Orleans, 2256 at 5 3-8 a 7½d, 24 at 8½d; 1370 Alabama, 1348 at 5 a 6¼, 22 at 6 5-8d. With the exception of 200 Brazils, for export, and 300 Americans on speculation, the business was wholly to consumers, and we cannot notice any change in prices; the middling and inferior qualities of Uplands have been comparatively neglected, while good were sought after and readily saleable. Sea Islands continue in request, but without any further advances in price. The import of the week was only 358 bales. On Saturday the sales were estimated at 2000 bales. The accounts from the manufacturing districts represent more activity in trade, but without any improvement in prices.

The grain market was quiet, and the business limited, at above previous prices; there are buyers of bonded flour, at 22s per bl. Tobacco the sales since 1st inst. are about 210 hhds. say 120 Virginia leaf, at 3d to 5d, mostly at 3¼ a 4½d, and 90 stemmed principally at 5 a 5¼d; in Kentucky very little doing, and the inquiry is confined to low quality of leaf at 2¼ to 2¾d.

Another letter of the 9th, (evening) says, "the sales of cotton this day amount to 4900 bales, nearly all American kinds, about 1000 bales of the latter description were on speculation, and the remainder were purchased by the trade. The prices of last week were fully supported, and in some quarters a little advance was demanded.

November 10.

"Yesterday, and this day, we have experienced a very animated inquiry. Sales 8000 bags; 1800 of which are on speculation, and all at very full prices."

Havre, Nov. 9th.

CORN AND FLOUR.—In consequence of a revival in the demand for wheat, much business has been transacted, though confined to parcels of superior quality, of which our market is again almost destitute. The prices of French new wheat advanced last market day 1 franc per bag, though confined to the quantity brought forward, was fully adequate to the demand. In flour nothing has been done worthy notice. Our port remains open for the current month, to the importation of wheat and flour, without distinction of flag, or derivation, at the following rates of duty, 10 per cent. surtax, included, viz: wheat 27¼c. per k; wheat flour 27¼ p 50 k rye and rye flour are prohibited.

COTTONS.—We have had a very flat market since our last, without however any decided decline, as yet, in our rates.—The sales since the beginning of the month, have been confined to 1163 bales, consisting of 639 Louisiana at 82 to 103; 395 Uplands at 80 to 93; 96 Pernambuco at 102½ to 107½; and 33 Guadaloupe at 106; all these prices duty paid. In arrivals we have only to notice 290 bales received from Liverpool

RICE.—About 200 tcs. have changed hands, on terms not transpired.

Nov. 10th.—More demand for cotton—340 bales taken at full prices.

Prices Current in New York, December 12.

Bees-wax, yellow .22 a .24. *Cotton*, New Orleans .9½ a .12½; Upland. .8¼ a .10½; Alabama, 8½ a 11. *Cotton Bagging*, Hemp, yd. .18 a 21, Flax .10 a .11. *Flax*, American, 8 a 9. *Flaxseed*, rough, cask 9.75 a—; clean 10.25; *Flour*, N. York, bbl. 5.06 a 5.18; Canal 5.37½ a 5.62½; Balt. Howard st. 5.75 a —; Richmond city mills, 5.75; country, 5.12 a 5.25; Alexand'a, 5.25 a——; Fredericksburg 5.12 a ——; Petersburg, 5.12 a —— Rye Flour, 3.25 a ——; Indian Meal, per bbl. 2.25 a 3.37; per hhd 13.75 a ——. *Grain*, Wheat, Vir. .97 a 99; N. Caro — a —; Rye, North, 65 a 66; Corn, Yel. Nor. .58 a —; Barley, — a .66; Oats, South and North, .29 a .35, Peas, white, dry, 7 bu. 5.00. Beans, 7 bu. 7 00 a 8.00. *Provisions*, Beef. mess 8 a 8.25; prime 5.60 a 5.75; cargo 4.25 a 4.50; Butter, N York, .12 a .15; shipping, .8 a 11; Lard, .5 a .6; Pork, mess 11.00 a 12.; prime 8.25 a 9 50; cargo —— a ——; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* 2.37½ a 3. *Tobacco*, Virginia .4 a .6½ —— Kentucky, .3 a .8.

Prices Current in Philadelphia, December 14.

Bees-wax, yellow —. a .23; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10 a 10.50, prime 8 a 9.00, cargo 7; *Butter*, No 1, 8 a —, No. 2, 6 a—; *Cotton*, New Orleans .9½ a .13, Upland 9. a .10, Tennessee 9 a .10, Alabama 9. a 10; *Feathers*, South. .34 a .36, West .33 a .34; *Flax* .7½ a .8. *Flour*, sup. 5.25, fine, 5.00 a —; Rye 3.68¾ a 3.75; Corn meal, hds. 12.25 a ——, bls. —— a 2.25; *Flaxseed*, cask —— ; bu 1.18 a 1.20, *Grain*, Wheat 1.02 a 1.05; Rye .50 a 53, Corn l. c. white, .44 a .—, l. c. yellow, 44 a .45, u. c. round, .50 a .—; Oats .30 a 36, Barley, Pa. .50 a .55; do. East. .66 a .67; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .5 a .6; *Oil*, linseed, 65 a 67; *Pork*, mess, 12.00 a ——, prime 11 a 11.50; cargo 10.00 a 10.25; *Rice*, 2 50 a 3.25; *Tobacco*, Kentucky .5 a .7, Vir. 4½ a .7; *Wool*, common washed lb. .18 a .22, half blood .26 a .—; three quarters blood .28 a .32, full blood 28 a .32; unwashed, generally 6 cents less, according to quality.

JONATHAN S. EASTMAN,

Has now on hand and is constantly supplied (at his Agricultural, Horticultural, and Seed Establishment, No. 36, west Pratt street, Baltimore,) with WHEAT FANS of the most approved kinds, made of the best materials and by good workmen; also, Cylindrical Straw Cutters, of which he is patentee, they are adapted to every kind of long forage, and surpassed by no other machine for the same purpose in any country. Likewise, a full assortment of Gideon Davis' highly improved Patent Ploughs,—the advertiser has recently made some improvement on the Shares of this Plough, which he trusts will be found an important advantage.

Also, Clezy's improved Scotch Plough, and improved Bar Share and Coulter Ploughs, of large size, Cultivators, Patent Corn Shellers, Dutch Cutting Boxes, Brown's Vertical Wool Spinner, Cast Steel Axes, superior Oil Stones, &c. &c.

Likewise, a general assortment of the Messrs. Landreths' Garden Seeds, warranted fresh and good, and at the same prices they are sold for at their store in Philadelphia. Orders will be received for Green House Plants and Bulbous Roots, from the Messrs. Landreth's splendid collection delivered here in good order, at the Philadelphia prices.

Also, Fruit and Ornamental Trees. On hand a good supply of Orchard Grass and Clover Seeds, both warranted of good quality.

P. S. Agents for the above, where gentlemen can leave their orders.

Messrs. Jona. Alden. Philadelphia.
Barr, Auchincloss, & Co. New York.
David J. Burr, Richmond, Va.
Randolph Webb, Raleigh, N. C.
J. C & C. Burckmyer, Charleston.
Dr W. W. Anderson, Statesburg, S. C.
J. G Herbert, Savannah, Geo.
Stephen Duncan, Esq. Natchez, Miss.

ALMANAC.

1829. December.	Sun. Rises.	Sun. Sets.	Length of days.	Moon Rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 19	7 23	4 37	9 14	0 50
Sunday,........ 20	7 23	4 37	9 14	1 46
Monday,........ 21	7 23	4 37	9 14	2 42
Tuesday,...... 22	7 23	4 37	9 14	3 38
Wednesday,.. 23	7 23	4 37	9 14	4 35
Thursday,..... 24	7 23	4 37	9 14	5 32
Friday,......... 25	7 23	4 37	9 14	sets.

Moon—New Moon, 25th 10 h. 35 m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

BALTIMORE MARKETS.—Floor and grain continues to decline—the former being held in store at $4.75 a 4 87½, and the reduction in the price of wheat is about ten cents in the bushel. In beef on the hoof also, there is a reduction of about seventy-five cents in the hundred weight. The cause of this state of things in the market, is of course excess of supply over the demand.

TOBACCO.—Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12.00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week comprise 190 hogsheads Maryland, and 4 hogsheads Ohio 19 hhds. Va.—Total 213 hhds.

FLOUR—best white wheat family, $6.00 a 6.50—super. Howard st. 4.75 a 4.87½; city mills, 4.62½ a —; Susquehanna, —. CORN MEAL, bbl 2.25 a 2.37½—GRAIN, best red wheat, .80 a .85; best white do. .90 a .95; ordinary to good, .70 a .80—CORN, old white, .36 a —; yel. .36 a —; new .32 a ——RYE, .48 a — OATS, 28.—BEANS, 1.10 a ——PEAS, .65 a — CLOVER SEED, 4.50 a ——TIMOTHY, — 2.50—ORCHARD GRASS, 2.00 ——Herd's, — a 1.50—Lucerne .37½ a 50 lb.—BARLEY, .50 a .55—FLAXSEED, 1.12—COTTON, Vir. .9½ a .10½ Lou. .11 a .12—Alab. 9½ a .11—Tenn. 9½ a .10—N. Car. .8½ a .9½—Geo. .9 a .10—WHISKEY, hhds. 1st p. .23½ a .—; in bbls. .25 a ——WOOL, common, unwashed, lb. .15 a .16—washed, .18 a .20—crossed, .20 a 22 -three-quarter, .28 a .30--full do. .30 a .35, accord'g to qual.—HEMP, Russia, ton, $220 a 225; Country, dew-rotted, 120 a 140—water-rotted, 170 a 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No 1, — a 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 a —; Mackerel, No. 1, — a 6.50; No. 2, 6.00 a —— No. 3, 4.50 a ———BACON, hams, Balt. cured, 9 a .9½—Feathers, .32 a.—Plaster Paris, cargo price per ton, 4.62½, ground, 1.25 bbl.—Prime Beef on the hoof, 3.50 a 4.50.—Pork, 5.00—Pine Wood, by the vessel load, 2.25 to 2.50; by the single cord, 2.75—Oak Wood, 3.00 to 3.75; Hickory, 4.50.

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AGRICULTURE.

COMPLETE TREATISE ON HORSES.

Teaching how to judge them; to rear and manage them; how to improve their breed; to prevent or to cure the maladies and accidents to which they are liable; and to derive from them the most value under all circumstances. Useful to Breeders and Farmers, engaged in the rearing of these interesting animals; to Officers of Cavalry or Inspectors of Recruits; to Keepers of Livery Stables, Sportsmen, or Veterinary Surgeons; to stage Proprietors, Travellers, Farriers, Horse Jockeys, Amateurs of the Horse, &c. &c.

By an Old Officer of the French Cavalry.

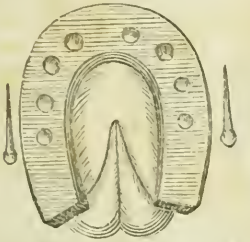
(*Translated from the French for the American Farmer.*)

(Continued from page 258.)

Of the first Shoeing.

The shoes usually used by farriers are too heavy; they are injurious to the gait of the horse, as they affect his foot. The shoe of a saddle-horse should not weigh more than fourteen ounces, including the nails. The calkers are necessary but in a very few instances.

Shape of a French Shoe.



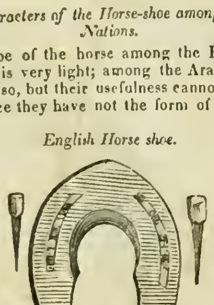
It is likewise injurious that the iron be not sufficiently close, because it then leaves between the hoof and the shoe an interval which admits of foreign bodies, such as gravel, and broken nails, that compress the sole, and cause the horse to walk lame.

The sponges of the shoe are generally too long; they should be made shorter. We cannot too much insist upon the necessity of paring much less than is usually done; as the hoof becomes thin, loses its strength, and is affected by the least pressure. However, the contrary excess should be likewise avoided; for it is certain that paring is useful, when carried on with the proper precautions. When the irons are old, they frequently occasion an itching in the fork of the horse's foot, which forces him to be constantly stamping. A suppuration also takes place at the fork, which requires to be pared and renewed.

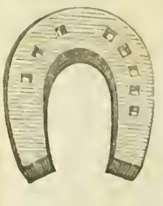
Of the characters of the Horse-shoe among some other Nations.

The shoe of the horse among the English and Spaniards is very light; among the Arabs they are still more so, but their usefulness cannot be appreciated since they have not the form of the horse's foot.

English Horse shoe.



Turkish Shoe



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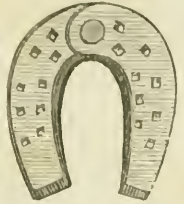

Results and consequences of the remarks which we have just made.

We must conclude from all we have just said, that it would be very desirable to be able to do without shoeing; since the custom is undoubtedly pernicious, as it increases the number of disorders to which the domestic horse is liable; that in the state of nature, horses, as well as other animals, do without them; that the Arabian horses perform very long journeys without feeling the want of them; and that other horses travel over mountains and rocky countries without shoes, perfectly harmless; and consequently that it would have been well had this custom never been introduced. But, as the custom has taken root, and that habit in this case, as in many others, cannot be overcome, and since the degeneracy of the most noble slave of man seems to require the continuance of this practice, at least, let us, by a careful inquiry into its principles, use all our efforts to make it as little injurious to this invaluable animal as possible.

CHAPTER XXII.

Of Lameness, and the manner of detecting it.

There is no disorder, to which the horse is subject, which is more common than that of lameness. We have thought that our readers would be pleased to get some precise and detailed notions about an infirmity which may entirely deprive them of the services of this faithful servant.

These observations are the more important, that very often, for want of knowledge and attention, a lame horse may be purchased, and we may be cheated by those false appearances and tricks that are so well known to jockeys, and which they practice with so much success when they wish to disguise this imperfection.

Lameness can be discovered by those motions which the animal naturally performs, in order to avoid the pain which he experiences.

There are several degrees of lameness. If the lame limb merely carries the animal a little less freely than is natural, the horse is said to limp. If the diseased leg is barely able to bear up the animal, he is said to (*boiter tout bas*) be quite lame; finally if the pain is very acute and the limb unable to touch the ground, the horse is said *to walk on three legs.*

Lameness is very common among horses and mares of burden. This subject is one of the most difficult to treat of when the seat of the disorder does not manifest itself by ulcers, tumors, fractures, luxations, or by an evidence of pain from the touch. A good judgment, a quick eye, and the habit of examining lame horses, alone can give the aptness to decide whether a horse be lame, of what limb, and from what cause; and there still remain many cases in which the most experienced will be at fault.

We shall, however, endeavour to lay down such principles as may in some measure remove a part of the difficulties.

The lame horse always seeks to relieve the injured limb by throwing the whole weight of his body upon the sound ones, and by bringing the disordered limb either forward or backward, but oftener the former. The French jockeys call this *se metre en garde*, or *montrer le chemin de Saint Jacques.*

If the lame leg be measured in an attitude in which it will be neither fore nor aft of the other, it will appear longer, in consequence of the greater weight thrown upon the others. And if it be a hind leg which is disordered the hip above it is more elevated; and it is lower if the limb be completely relaxed.

In most cases of lameness, particularly those of recent occurrence, the seat of the injury can be detected by touching successively every part of the limb. The diseased spot is known by a greater degree of heat, and by its occasioning when pressed an evidently painful sensation to the animal. However, sometimes the animal draws back from fear; and there are besides certain parts more sensitive than others, which when strongly pressed may occasion pain. Such are the tendinous parts near the sesamoid bone, the lateral parts of the cornet, &c.

If the horse be injured in his two fore legs, he will seek to relieve them alternately; but his rest is always shorter on the more affected limb. In this same case, the hind legs are brought more forward towards the centre of gravity of the animal, and the head is held up to diminish the weight upon the weak limbs.

The contrary of course takes place, if it be the hind legs that are injured.

If it should be found impossible to discover the seat of the complaint when the animal is standing, he must be made to walk, or trot; when it will be perceived that he endeavours to relieve the game leg, by throwing as little weight upon it, and withdrawing it as quickly as possible.

If the irregularity should be perceivable only when the horse walks along, then it is difficult to assign the seat of the injury.

Principles which it is indispensable to know.

In order to be able to appreciate what we are now going to say, it is necessary to bear in mind that there are four motions belonging to each limb of the horse: 1st, he lifts up the leg; 2dly, he throws it forward in a line nearly parallel to the ground; 3dly, the leg is brought to the ground; and 4thly, as soon as the foot touches it, the weight of the body begins to act upon the limb, and continues more and more until he is about to raise it again. All these motions must be equable when the gait is fair.

In the lame leg, the rise is more rapid, it is kept longer above ground, and appears stiff, the foot is cautiously put down and as it were with hesitation, its rest is weak and the shorter in proportion to the degree of pain which the animal experiences; on the other side, the sound limb operates just the reversely. The animal holds up his head at the moment that the lame leg touches the ground, this is what the French jockeys call *boiter de l'oreille.* The body is thrown upon the other limbs, and particularly on the two opposite ones; and if the pain prevents the lame foot from being rested, the animal jumps, which motion is produced by the effort which is made to relieve it. A short turn upon the injured limb is likewise very painful.

Such are the general indications by which it may be detected that a horse is lame. Others may be given by which it will be known whether the injury be in the fore or hind legs, or in the right or left.

If it be a fore leg, the horse carries his head high, in order to relieve his fore parts, by throwing the weight of his body on the hind parts, and drawing up these as much under the body as possible.

When the horse is lame in a hind leg, he relieves himself as he walks at the instant the foot is pressed upon the ground; he lowers his head and throws his body forward. The rest of the lame foot is always accompanied by a sudden depression of the buttocks, to avoid the weight of the body upon the limb; the horse likewise throws himself on the sound side, which indicates whether it be the right or left limb that is injured.

If the horse carry his head low, and the fore limbs are thrown back under the body, it may be concluded that the hind limbs are affected.

Jockey tricks unmasked.

If the lameness be very slight it may, notwithstanding the above precautions, escape the eye of the most experienced observer; it is, therefore, necessary, in order to increase the symptoms, to trot the horse rapidly or smartly, keeping a tight bridle upon him.

Should this not answer, let the horse be made to trot over a circus, taking care to give him alternate checks from right to left every few minutes, and thus comparing his motions during the several changes.

So long as the injured limb will be on the outside of the circus, the horse will give none or very little evidence of lameness; but this will be apparent when it is inside, and the more so in proportion to the less circumference of the circus.

When it will have been discovered which, and how many, limbs of the horse are lame, it will be necessary to find out exactly where the seat of the injury lies: namely, if it be in the foot or in the upper part of the limb; but in most cases it will be found to be in the foot. However, very frequently, when the touch, with the instruments, does not indicate the suffering part, the examination of the foot is given up, and the shoulder or thigh is supposed to be the affected part. It is then ignorantly asserted that the horse is lame in the hip, or other adjoining parts, and plasters are accordingly applied, during which time the malady, in spite of the good effects anticipated from them, progresses in its ravages so far as to baffle all resources. At other times, fortunately, the animal is cured naturally, because the sole cause of the disorder proceeded from fatigue, and that rest alone was sufficient to operate a cure.

Of the signs that indicate the injury.

We cannot too much insist upon the necessity of examining the foot of the horse, whenever any signs of lameness are observed.

Besides this, however, there are some certain signs that the lameness is in the foot; for example, the animal seeks in preference soft ground, or to walk on manure; he avoids the pavements, particularly if the injury is located in the fore feet. And, if he rest obviously on the heel, and takes wide steps, no doubt but that the injury is in the front part of the foot. The contrary takes place, if the disorders be in the posterior part of the foot. If the pain be lodged in one of the quarters, it will be known by the fact that the rest of the corresponding foot is more firm on the healthy side; particularly if on trying him, the horse has taken a fair start.

Of several useful precautions.

We should not be satisfied with merely examining the condition of the foot when the horse is walking or standing; we should provide against any deception of the sight or touch. In order to do this, the horse must be unshod, the nails must be taken out, and it will be perceived either by the inconvenience which they will have occasioned, or the holes which they have made, where is likely to be the seat of the damage. To this effect the sole and fork must be thoroughly pared, so that the sole be quite tender under the finger, then with the pincers the sole must be cautiously touched, so that whenever the injured part is hit upon, the increased pain from the operation shall become evident. But, in order to proceed with method, it is necessary to begin by the inside heel, which is the one most subject to injury, and so on to the outside heel, concluding by pinching the fork and particularly the point which corresponds with the centre of articulation of the *os navicularis*. The incision is then made where the pain appears the greatest; it will be found to proceed most commonly from a bleym, a puncture, a splinter, a nail, or a burn of the sole; otherwise the injury is in some other part; it is either the seym, the bony-hoof, the crepanse or cratch, a swelling in the hollow of the pastern, a founder, or even a fracture of the bone of the foot, or of the cornet.

When the injury is in any other part, there are signs by which it is indicated.

Whilst standing, tumours, wounds, and an unnatural degree of heat, indicate the spot. If the horse is walking the limb is stiff, he raises it with difficulty, and brings it down shortly.

Sometimes the lameness is owing to a choaking of the spermatic vessels, or to some verminous disease; in some cases the horse can scarcely bend his limb; he is said to (*faucher*) mow.

The animal may be lame in two or three limbs, or even all the four may be affected; then the lameness of the two more affected, will prevent the injury of the others from being perceived; but if the limbs the most affected were in a healthy state, the lameness of the others would become apparent.

Of the effects of lameness, and general precautions for preventing it.

Very painful cases of lameness will occasion lowness of spirits in the animal, fever, and a loss of appetite; it causes the affected limb particularly and sometimes the whole body, to pine away; and if it be attempted to feed the animal more than his sufferings will allow him to take, indigestion will be the result which may terminate fatally.

It is remarked that the injuries of the hind limbs are much more painful than those in the fore limbs, and consequently are more rapidly accompanied by a general debility. Hence, they are more difficult of cure.

If the whole attention be alone directed to the cure of the lame limb, success is not so likely to follow our exertions; because, we have already remarked that the limb not being able to support its portion of the weight of the body, throws the whole of it on the others and particularly on the leg situated diagonally; but this leg itself may be weak; and if the illness last a long time, the overburdened limb becomes in its turn diseased. In this case, then, the only plan is to make the animal lie down to prevent fever, pining, anxiety, and all the accidents to which he is liable, when otherwise treated.

It will not suffice to attend simply to the lame leg; and the longer the cure is likely to be, the more attention should be paid to the health of the sound extremities. It is at this stage that art must be fully resorted to. 1st. The sound limbs must be eased of their shoes. 2dly. If there be any inflammation, or any swelling about the tendons of the lame foot, which can be discovered by any onnatural heat in the part, or by a fulness of the blood-vessels, or by a strong pulsation of the lateral arteries.

Besides the operation of shoeing and paring, the animal must be immediately bled in the jugular vein; mucilaginous injections slightly acidulous must be administered, when tepid; the horse must be provided with a good litter; emollient poultices are then to be applied over the tendons, to the fetlock and the feet; the animal must be frequently turned, and his feet bathed in warm water. These attentions must be continued until the horse is able, by a cessation of the pain, to stand upon his legs.

We have deemed it advisable to examine separately the different sorts of lameness in which the painful parts are discovered with difficulty, or cannot at all be perceived by those who have not an experienced judgment in these matters.

(To be continued.)

(From the N. Y. Farmer and Hort. Rep.)

AGRICULTURAL SCHOOL.

The following plan of a School, to unite mental culture with bodily labor, cannot fail of being read with much pleasure, by all who take an interest in the welfare of their fellow beings. We are much pleased to see the increasing attention paid to *laboring schools*—a plan of education, which in our view, will greatly augment the happiness of mankind.

Constitution and By-Laws of the Polytechnic Institute of Shrewsbury, Monmouth County, state of New-Jersey.

To the Friends of Improvement in the United States, and in our sister Republics of the South.

In a land of republican freedom, nothing but the smiles of Heaven can be deemed so absolutely essential to the perpetuity and perfection of our political and religious institutions, as the equal and mutual cultivation of all the latent energies of the youth of our country, directed to the goal of happiness in the path of duty.

But how, it may be asked, shall an object thus desirable, be effectually attained? The answer is at hand—By employing methods of instruction, in which shall be inculcated all those truths that pertain to mortal life, and human duty: in the place of systems, venerable indeed for their antiquity, by which the memory is burdened with a mass of pretended knowledge, with which the interest of man have not the slightest concern.

To organize a system thus *practically* useful, has been resolved by a company of individuals, long and laboriously engaged in the business of instruction. The annexed Constitution is an exact copy of their mutual compact, from which it will be seen that an efficient encouragement is proposed to be given to the most interesting pursuits that can engage the youthful mind—to general Literature—to the improved Sciences—to the liberal, as well as the useful Arts; to Agriculture, Horticulture, and Landscape Gardening, in the manner following: viz.

First—By forming a Company or a co-partnership, with an adequate vested capital.

Secondly—By providing an extensive tract of valuable land, suited to the object.

Thirdly—By erecting such buildings as the nature of the establishment shall require.

Fourthly—By employing professors, teachers, and masters, of the first character.

Fifthly—By providing philosophical apparatus, books of Literature and Science, a Museum of Natural History, a Botanical Garden, implements of Husbandry, and tools of Art, proper for such an institution.

Sixthly—By affording facilities to young men of talents and industry, which are found in no pre-existing school, academy, or college in these states.

Lastly—As one of the principal designs of this institution—By giving opportunity to such as are desirous of becoming acquainted with the best methods of *instruction*, and thus to prepare themselves in the shortest time, and under the most favourable circumstances, to instruct in schools and academies.

One of the most spacious farms in the state of New Jersey has been selected and purchased, and one of the buildings already commenced. This farm is situated in one of the most healthy and delightful sections of the United States, thirty miles south of the city of New York, seventy miles north-east of Philadelphia, six miles east of Shrewsbury, and six miles north of Long Branch, in the county of Monmouth. The farm is bounded on three sides by tide waters, having the ocean on the east, North Shrewsbury river on the north, and South Shrewsbury river on the south, both of which rivers are navigable for packets, sloops, and steamboats. These waters abound with oysters, clams, and other fish of the best quality. A pure stream of fresh water traverses the land from west to east. The fields are enclosed with hedges, which give the whole a picturesque appearance. The hills of Navesink are in full view on the north, and on the east the ocean, beautified with vessels of all descriptions at every season of the year.

The woodlands, of which there are more than a hundred acres, contribute much to the general landscape; and two orchards, one of apples and one of peaches, fill up the outline. On the whole, it may be said, with strict propriety, that no tract of land, of equal extent, combines more advantages for such an institution.

On the shore, adjacent to the ocean, at the distance of nearly a mile from the central square, it is proposed to erect suitable buildings for family residences in the summer months. The site proposed is not surpassed on the Atlantic coast as a delightful watering place.

In relation to professors, teachers, and masters, it may not be irrelevant to state that the proprietors have already contracted with several individuals of unrivalled talents and experience, and are determined that no seminary in the country shall exceed the Polytechnic Institute, either in the number or abilities of its executive agents.

On the subject of facilities afforded to pupils, whether rich or poor, the plan of this institution stands without a parallel. If the rich can procure for their sons, by sending them from place to place, at great expense and trouble, sufficient instruction in the sciences and liberal arts, it should not be forgotten that the Polytechnic Institute offers equal advantages to *all*, by enabling any industrious and ambitious youth to gain an independent living and an accomplished education by virtue of his own exertions.

Agriculture and the productive arts are connected with the operations of the institution in a triple capacity. They afford timely and wholesome exercise and amusement. They supply the deficiency of funds in case of the indigent. They qualify for usefulness and prosperity in all those instances in which a learned profession is not the object of education.

In regard to such young men as desire to become more efficient teachers in schools and academies, no pains will be spared to afford them every advantage that such a destination may require. The best methods of inculcation will be made known to them, opportunity of practice afforded them, and certificates given on their leaving the Institute.

It is also intended to educate clerks expressly for mercantile houses, and so to direct the studies of all pupils who design to pursue the business of merchandise, as to qualify them for that employment.

To secure the hearty co-operation of all the pupils in promoting their own welfare and that of the Institute, it is hoped that every parent sending to the school, will purchase a share of the stock to become the property of his son, with accumulated interest on his obtaining an honourable testimonial of general proficiency from the Resident Directors.

In addition to the funded capital, donations will be received from benevolent individuals, for establishing professorships, founding scholarships, erecting buildings, increasing the library, mineralogical cabinet, botanical collection, museum of natural history, or such other purposes, as the donors may prescribe.

For the purpose contemplated, the Land may be estimated at $40,000; the necessary Buildings, Docks, &c. $40,00; Stock, Farming Utensils, Philosophical Apparatus, and Tools of Art, $20,000.

George Washington Hall,
Seth T. Barstow,
Solyman Brown,
Resident Directors.

CONSTITUTION OF THE POLYTECHNIC INSTITUTE.

Article 1. The co-partnership, or incorporated company, as the case may be, shall be entitled, "The Polytechnic Institute of Shrewsbury, Monmouth County, New Jersey."

Art. 2. The operations of the Company shall be directed to the cultivation and encouragement:

First, Of Literature and Science.

Secondly, Of the liberal and useful Arts.

Thirdly, Of Agriculture.

Art. 3. The capital stock of the company shall consist of one hundred thousand dollars, divided into shares of one hundred dollars each.

Art. 4. The officers of the company shall be ten in number, namely, a President; a Vice-President; a Treasurer; a Secretary; a resident Director, acting as Superintendent of Literature and Science; a resident Director, acting as Superintendent of Agriculture, and resident Physician; a Resident Director, acting as Superintendent of the liberal and useful arts; a non-resident Director of the city of New York; a non-resident Director of the city of Philadelphia; a non-resident Director of the state of New-Jersey.

Art. 5. The Board of Resident Directors shall be constituted by mutual agreement, and shall solicit an act of incorporation of the legislature of the state of New-Jersey, with power to confer diplomas, and with further power to appoint successors in office in case of resignation or removal, and with further power to hold real estate and perform such other acts as are lawful and proper for bodies corporate; and in case such act of incorporation shall not be granted, the Resident Directors shall transact the business of the Company in the manner of a co-partnership.

Art. 6. A written or printed certificate of stock, signed by the Resident Directors, shall be given to every stockholder, and endorsements made thereon for each instalment of twenty-five dollars per cent. semi-annually paid, in four payments successively, said endorsements to be made by one of the Resident Directors.

Art. 7. Every certificate of stock shall become null and void, on the refusal or neglect of the holder thereof to pay the semi-annual instalments of twenty-five dollars each, until the full sum of one hundred dollars shall be paid on each and every share.

Art. 8. A record of stock shall be kept by the Corresponding Secretary, which record shall be good and legal evidence in favor of the holder, in case of the accidental loss of his scrip.

Art. 9. Each and every certificate of stock shall be numbered, given to order, and capable of sale or transfer.

Art. 10. Each and every stockholder shall be legally entitled to an interest of six per cent. per annum, secured by the lands, tenements, and other property of the Company.

Art. 11. The Board of Directors shall be requested by the Resident Directors to assemble annually in the month of August, on a day by them appointed, at some of the private residences on the lands owned and occupied by the Company, for the transaction of any business that may come before them; at which annual meeting they shall be vested with plenary authority to examine pupils, to confer diplomas, and to advise the Resident Agents of the Company in relation to the operations of the ensuing year.

BY-LAWS OF THE POLYTECHNIC INSTITUTE.

Art. 1. All sectarian distinctions shall be avoided.

Art. 2. Corporeal punishment shall be totally prohibited, and a system of parental government substituted in its place, operating by moral force.

Art. 3. Equal and reciprocal justice shall be carefully regarded in the alotment of salaries to professors and other agents of the company, and in relation to prices of tuition and personal services required of the pupils.

Art. 4. The salaries of professors and agents, the prices of tuition, and the terms of admitting pupils, shall be determined by the Resident Directors.

Art. 5. Diplomas of general scholarship shall be conferred by the whole board of Directors at their annual meetings; but diplomas given to teachers attesting their qualifications to instruct in schools and academies, and certificates to clerks, shall be awarded by the Resident Directors.

Art. 6. There shall be no periodical vacations in the Institute, but all privilege of absence from the studies and other operations of the company for a limited period, shall be by permission of the Resident Directors.

Art. 7. No pupil, shall be received for a less term than one year, excepting such as are qualifying themselves to be instructors, or clerks.

Art. 8. No diploma shall be conferred upon any pupil until he shall have been a member of the Institute for at least three years, excepting such as are conferred upon instructors.

Art. 9. Profane language, gambling, and the use of ardent spirits, shall be utterly prohibited on penalty of suspension or expulsion.

Art. 10. A kind and affectionate deportment shall be observed by the superintendents, professors, and teachers, towards their pupils; and obedience and respect shall be required of every pupil in relation to the officers and agents of the Institute.

List of Officers, Professors, and Masters, in the Institute.

President of the Board of Directors; Vice-President of do; Treasurer of the Company; Secretary of the Board of Directors; Non-resident Director of the city of New-York; Non-resident Director of the city of Philadelphia; Non-resident Director of the state of New-Jersey; Resident Director and Superintendent of Literature and Science; Resident Director and Superintendent of Agriculture, and Resident Physician; Resident Director, Superintendent of the liberal and useful arts, and Corresponding Secretary, Professor of Mathematics and Natural Philosophy; Professor of the Ancient Languages; Professor of the French Language; Professor of the Italian Language; Professor of the Spanish Language; Professor of Chemistry and Mineralogy; Professor of Botany and Horticulture; Professor of Ethicks and Intellectual Philosophy; Professor of Political Economy and International Law; Professor of Elocution and Rhetoric; Professor of Analytic and Instrumental Music; Professor of Drawing and painting in oil and water colours; Professor of English Literature; Professor of Practical Book Keeping; Professor of Ornamental Penmanship; Professor of Architecture and Master Builder; Professor of Horsemanship and Athletic Exercises; Master Mason; Master Cabinet Maker; Master Painter and Gilder; Master Harness and Saddle Maker; Master Wheelwright, Carriage and Wagon Maker; Master White and Black Smith; Master Boot and Shoe Maker; Master Tailor and Cap Maker.

(From the New England Farmer.)

DISEASE IN CATTLE.

Mr. Fessenden,—In the last N. E. Farmer [Am. Far. No. 37, p. 290.] is a statement of a disease in cattle, belonging to Robert Patten, Esq, and information on the subject is requested. The disease, as there stated, appears new, and it is somewhat singular that it should affect both oxen and horses alike. It is said, that it destroys the life of the animal in 18 hours, and sometimes sooner, which shows the existence of some powerful cause: "Symptoms, heaviness about the eyes, and loss of appetite, without much apparent pain, until shortly before death, when the agony became extreme. On opening the bodies, the intestines were found in a healthy state, the vital parts not disordered, and no appearance of disease, save in the spleen, which was enlarged to twice its usual size, and looked mortified."

In all such cases, the bodies should be inspected by some one that has a knowledge of the structure of the various organs, and the changes which take place in consequence of disease. Every organ should be carefully examined, and every morbid appearance delineated. Hasty and superficial examinations often lead into error. In the present case, we are told, that the spleen "looked mortified," but nothing is said of any marks of inflammation; and we cannot suppose that organ was "mortified" without such marks about the part affected. Perhaps, after all, the immediate cause of death was not detected. The enlargement of the spleen is gradual, and in the present case, it is presumed, that merely the enlargement of that organ was not the immediate cause of death.

The symptoms of the disease, as stated above, are so similar to those in a case of poison, that I will give you the whole story, so far at least, as is necesry to be known; although I do it with the mingled feelings of pity and regret. It may be useful.

In the morning of the 19th of April, ——, my young man, who had the care of my creatures, informed me that my horse was unwell, and had not eaten the hay which he gave him the evening previous. At first I thought little of it, presuming that he had given the horse too much; but on examination I found that he was sick; refusing every kind of hay and grain, "heaviness about his eyes" no disposition to move about, and did not discover any symptoms of pain, except occasionally lying down a few minutes. He would now and then receive a little water. I sent for a neighbor who practised among sick cattle, to whom such business properly belongs. He examined the case, and declared his ignorance of the disease and method of cure, but thought his pulse a little accelerated. I told the man to take blood freely; and this was done, but without any apparent effect. On the next morning, April 20th, my cow, a fine animal, in high order, and expected to have a calf in a few days, was found laboring under the same symptoms. Again the neighbor was called. He made his examination, and again confessed his total ignorance of the cause, disease, and mode of cure. I advised to the same remedy, blood letting; and it was done without any apparent benefit. The horse remained about the same.

April 21. Symptoms the same in both the animals. I then sent some distance for a farrier, who was highly approved in his profession. He examined both cases with attention, and declared that they were unknown to him. From several circumstances, not necessary to name, I apprehended a partial stoppage in the intestines of the cow, but not a total obstruction; therefore I directed him to make use of his laxative medicines; all which he did, giving his undivided attention to his business, both day and night; but without any apparent effect.

April 22. The horse the same, but the cow worse; she became weak, and did not like to move, refused every thing but a little water, and when down it was with some difficulty to rise. On the morning of the next day, April 23d, the horse began to mend, and to show signs of returning appetite, but the cow died in agony.

At that time, from all the circumstances now detailed, I suspected the cause to be poison; and from the circumstance, that no poisonous weed grew on my land, I suspected that the poisoning was intentional, and that it was effected by arsenic. This conjecture was strengthened by *knowing* that it required a large quantity of that poison to destroy a horse.

Before the body was inspected, I stated to the farrier, and a few others who happened to be present, that I suspected that the cause of death was poison, probably by arsenic, and delineated the appearances on dissection, should that be the case. On opening the first stomach, no disease appeared, except a few light marks of inflammation. In the next apartment, the manyfolds, these marks were more prominent, and in some places there were spots approaching to a gangrenous state. In the true stomach; there were the greatest marks of inflammation, extending over one third of that organ and three or four inches below the pylorus. Such was the inflammation, that the pylorus, at that time, was completely obstructed. A small part of the stomach was gangrenous. These were the only marks of the disease observed.

Notwithstanding the appearances were exactly as I had delineated; yet, neither the farrier nor the bystanders believed that the cause was poison: but now to put the question of poisoning beyond all possible doubt, I will observe further, that by a singular circumstance the offender happened to be suspected, and by a proper management, a number of facts in the course of a few months developed themselves, by which I had the strongest presumptive evidence in my own mind, and determined to pursue the perpetrator with legal vengeance, and expose his turpitude. He knew not that he was suspected until he was privately informed of my determination—on which he threw himself on my mercy, and made a full confession of his guilt.

Dec. 3, 1829. VERITAS.

COTTON AND INDIGO.

Samples of these articles, of very superior quality, both raised in Chowan county, (N. C.) may be seen by application to a gentleman from that section of country, who may be found at the counting room of Mr. *John A. Roberts.*

Indigo.—We are much gratified to learn from a gentleman from Carolina, with whom we have recently conversed, that several farmers of that state, have of late turned their attention to the cultivation of this important article of consumption, and from the success which has attended the experiments in the quality of the article produced, and the liberal profit which it yields, it promises ere long, to become a valuable item in the agriculture of the state. Among those who have devoted most attention to the object, and whose intelligence and enterprise promise the best results, is Mr. *William Righton*, of Chowan county. Specimens of his manufacture may be seen as above stated, and we take a lively interest in inviting dealers to call and see so good an article, prepared at our doors, and which only wants encouragement to become an important staple in our trade with other sections of the U. States.

BOTS IN HORSES.

[A correspondent thinks his much valued hunting pony has the *bots*, and inquires as to the remedy; a friend of competent judgment, and a chemist of high character, to whom we refered the letter, answers as follows:]

J. S. SKINNER, ESQ. *Baltimore, Dec.* 21, 1829.

Dear Sir,—By referring to several works on farming, I find that *bots* (which are small worms that are generated in the stomach of the horse, and not, as is generally said and believed, first deposited around the anus, and then make their way to the stomach,) occasion one of the most difficultly cured disorders to which the horse is liable. Feroo proposes no remedy, but Mason recommends several, to which I would refer your correspondent.

I myself am led to believe that an effectual vermifuge in this case, would be found in the common *worm syrup* of apothecaries, which is a mixture of worm seed oil, syrup of rhubarb, and castor oil. The remedy then, which I would recommend would be one pint of cold pressed castor oil, in which I would incorporate a tea-spoonful of worm-seed oil, and two table spoonsful of syrup of rhubarb, to be given as a drench, and an hour afterwards should the medicine not have operated, I would repeat the dose of castor oil, *without* the worm-seed or syrup. This mixture forms decidedly the best vermifuge for all worms, to which the human system is liable, and I see no good reason to doubt its equal efficacy in removing those to which other animals are subject. But your correspondent must bear in mind that I have never *proved* the remedy, and propose it only analogically.

Should any of the *bots* be voided by the horse alive, the efficacy of the remedy might be ascertained, previous to its use, by throwing some of those *bots* into a portion of the mixture, and observing its effects upon them; for it is said in the farriery books, "that they will live in any medicine that can be given to a horse, nearly as long as they can live without eating." I do not think the remedy I propose has been tried, and feel confident it can do no injury. Your correspondent may try it in all safety, and let us know the result.

HORTICULTURE.

(From "Prince's Treatise on the Vine.")

WINE GRAPES.

I will now proceed to describe the varieties which are most generally used for making wine, and which form the major part in the finest known vineyards. Under this head are necessarily included many varieties that are very estimable as table grapes, but whose most important use in foreign countries being for wine, they are consequently placed under this head.

BLACK CLUSTER.—PR. CAT. No. 94.

Maurillon, Duh.
Maurillon noir.
Morillon noir.
Pineau noir, of Burgundy.
Pineau de Bourgogne, Chaptal.
Auvernat, or *Auvernas.*
Auvernat noir.
Pimbart.
Manosquen.
Merille.
Noirien, or *Noirier.*
Massoutel.
Gribalet noir.
Farinau.
True Burgundy.
Small black cluster.
Black Orleans.

Vitis *uvâ mediocri, sublaxâ, acinis dulcibus, nigricantibus.*

This variety has leaves slightly five lobed and very regularly indented; the bunch is of moderate size and shouldered; the berries are rather oblong and hang loosely, and are about the size of the white muscadine; the taste is pleasant, with a peculiar flavour. It is not considered a table fruit, but is highly prized for wine, and ripens its crops uniformly, and at the same time as the white chasselas. It stands the frost well, being one of the most hardy kinds. The crops are not great, but the wine is rich, keeps well, and has an agreeable bouquet. The Maurillon class, of which the finest vineyards of Burgundy are composed, and the different varieties of which are deemed the staple of the vineyards of France, owes its name, which is derived from the word *maure*, to the black colour of this the original variety, and many other black grapes which are not of the family of the Morillon or Pineau, are called in other French vineyards by the names of Maurillon noir, &c. and this is known under all the appellations given as synonymes. It ripens here the beginning of September. The class of maurillons originally came from Italy; but this is the only one which has retained its primitive name, and is described by Baccius, whose treatis on the vine was written in 1566. It constitutes rather a bad comment on the theory of "exhausted varieties," that this very aged vine should have the preference in France at this day over all others.

Under the title of Pineau or Pinot a great number of red and black varieties of grapes are found in various French vineyards, which are in fact totally different in character, and serve only to make inferior wine; great care and circumspection are therefore necessary to obtain the genuine kinds. The title Pineau was originally applied to such varieties only as produced berries shaped like the pine cone, but some kinds having round berries are now justly included in the same class, being varieties of the same family, similar in quality but varying in form.

WHITE MORILLON.—Pr. Cat. No. 95.

Maurillon blanc. Duh.
Morillon blanc.
Auvernat blanc.
Mélier, or *Mélier blanc.*
Weiss-klefeln blanc.
Burot.
Weiss-kloefner.
Mornain.
Daune.
Daunerie.
Beaunier.
White auvernat.

Vitis *præcox; uvâ elongatâ, acino rotundo, albo flavescenti, et dulci.*

The clusters of this variety are longer than those of the preceding, and the berries are nearly round, of moderate size, not very thick set, of a greenish white, which becomes blended with pale yellow at full maturity; they are rather more sweet and agreeable than the black variety.

The leaves are slightly lobed, and are bordered with large indentures; they are of considerable size, green on the upper side, whitish and downy beneath, and supported on large long petioles.

This grape ripens here at the end of August or beginning of September, is a pleasant early table fruit and makes good wine, which keeps well; the grapes may also be kept fresh through the season. It is said to thrive best on sloping ground inclining to the west or south, but I consider it by no means difficult in this respect as I have had some vines for several years in a most unfavourable locality where they have never failed to do well. It has the same hardihood in supporting frost that is common to the class generally.

Copy of a letter from S. Boyden, Esq. of Newark, New Jersey, to Wm. Prince, proprietor of the Linnæan Botanic Garden.

Newark, December 7th, 1829.

Yours of the 23d of November is at hand, asking for a description of my best Isabella grape vine, its age, situation, treatment, quantity of grape it produced, &c. which I cheerfully impart, not however, thinking it of much importance to you or the public.

In the spring of 1827, I transplanted the vine of one year's growth, from the slip or scion, to a situation under an arbour sixteen feet south of my work shop, in a soil moderately dry, and naturally heavy, being a bed of yellow clay, within ten inches of the surface, the soil had been rendered lighter by sand and manure. I kept the ground ten feet around the vine covered three or four inches deep with weeds and surplus plants, cleared from the garden which was supplied as often as the garden required dressing—the ground was frequently dug over two inches deep to keep it light, and facilitate the decay of the vegetables, which is all the manure I applied. During the driest of the season a few gallons of water was thrown around the roots, but this was not often necessary, the foliage that covered the ground prevented it from drying. Pruning has been carefully attended to, not allowing a branch to grow that was not wanted, this increased the growth in the branches that would give it the greatest extent. In the summer of 1828, it bore probably about 500 bunches of grapes, and covered a space of about 350 feet. In the spring of 1829, the branches were adjusted as near 12 to 15 inches a-part as possible, and as soon as the buds had grown so it was easy to see which would bring forth fruit, I cut off all the small and surplus buds, leaving two or three buds to a square foot, the vine produced 2800 bunches of grapes of good size, and exceeding 3000 bunches in all, which by careful estimate would weigh 575 lbs.; the trunk of the vine now measures 5½ inches in circumference, reaching to a horizontal frame or arbour six feet high, the branches cover an area of more than 500 feet. If this is any thing useful and original, I shall be much gratified in communicating it to you.

(From the New York Farmer, and Hort. Rep.)

The Coconut Squash from Lima, in Peru.

Mr. Rathbone, a gentleman from the western part of the state, gratified me a few days ago with a sight of a new variety of fruit. It is called the Coconut Squash. The seeds were received from Lima, in Peru, last spring, in a letter from a son to his father, being, as the good boy stated to his parent, all he had to send him. Being planted on one of the islands, in the Hudson river, not far from Albany, they vegetated with great luxuriance, and produced a noble crop.

They have received the name from the resemblance of their figure to that of the Coconut. The heaviest weighed upwards of ten pounds. The color of the skin is green with a brownish crust or covering. The pulp is of a beautiful saffron or carrot color.

By boiling, it is converted to a tender and delicate sauce, of remarkable sweetness, and excellent when eaten cold as well as hot. It seems to possess the joint qualities of the squash and pumpkin.

I have caused a fair experiment to be made with the one which was presented to me; and all who have tasted, are pleased with its rich complexion at table, and palatable flavour.

As Messrs. D. Kenney & Co., have the seeds for sale, it may be expected that cultivators will not fail to supply themselves and enjoy the benefit of such a valuable culinary and horticultural article.

New York, Nov. 1829. S. L. M.

(From the N. Y. Farmer and Hort. Rep.)

On the cultivation of the Aracacha plant in the United States, and in the island of Cuba.

It is well known to horticulturists, that several plants of this species, were received a few seasons ago, in a living and growing condition, from Caraccas through the public spirit of Thomas H. Mitchell, Esq. He presented them to me, and I placed them under the protection of our worthy colleague, Michael Floy. The cold weather coming, he put them into his green house, and they went thriftily through the winter. When the warmth of spring was felt, he removed them to the open ground of his garden. The weather was for a considerable time unusually dry, and they perished. I do not know that any others have been received among us since. In the appendix to my address before the New York Horticultural Society, as well as in the body of the address itself, I mentioned the strong doubts I entertained of the practicability of its profitable introduction into our country. Still in reading Sagra's Annals of Science, Agriculture and Arts, for June, 1829, I found an article (Number 24, page 356-358,) on the subject, which I considered worthy of a translation, which I offer for insertion in your valuable repository.

Samuel L. Mitchill.

This precious plant, of the family of the umbelliferæ which is cultivated on the continent of America, as well as in Jamaica, ought to be introduced into the island of Cuba and transported hence to the peninsula (Spain,) where it would be of great benefit. The foreign journals recommend it as preferable to the potato (Convolvulus batatas) as being richer in alimentary matter, and more agreeable to the taste. It seems to us very probable that it may have been brought to some points along the coast of Cuba, nearest to Jamaica, such as Trinidad, and under this persuasion we give the following note on its cultivation, hoping soon to see it introduced into the immediate neighborhood of Havana.

This vegetable is multiplied by planting the roots. Each root is covered with sharp pointed tubercles. Those intended for propagation are separated or divided in such a manner, that the base of each bud may have a fleshy portion two or three inches long connected with it. The germs are removed in such way that the vegetative force may be concentrated to a single point.

The cuttings must be arranged about 18 or 20 inches apart, with a gentle inclination to the soil.

After they have come up, they are to be trodden down like potatoes.

When the blossoms begin to form, they are to be cropped that the vegetation may be directed to the roots.

In Santa Fe, where mean temperature is 23 degrees and 3 tenths of the centesimal thermometer, the root comes to perfection in six months. In Havana it ought to be matured in four.

When the roots are exposed for drying in the open air of a field, this process should be three days at most.

It appears that in Jamaica where it grows very well, it is cultivated in poor grounds (such as the mountains of St. Andrew) where it gets but little rain.

The French periodicals of agriculture and industry, are clamorous for this plant, and the editor of one of them, M. Moleon, has taken all the necessary steps for procuring it. The orders despatched by the ministers of the Marine and of foreign commerce have assured the precious acquisition to France. Can it be possible that the inhabitants of the banks of the Seine, shall take crops of aracacha roots, sooner than those in the vicinity of Trinidad or Cuba?

To such persons as may, under the instruction of this note, attempt to fetch the arracacha from Jamaica, that they should not take the entire plant, but the roots only, which should be packed in charcoal of wood in very dry powder. Such boxes can be brought without any difficulty, while on the contrary, the living plants will require much water, which, though it may keep them alive, accelerates the decay of the roots.

Remarks by the Editor.—Mr. Floy is very sanguine that the above plants can be raised in this latitude. The death of the plant was owing to an incautious and sudden exposure.

LADIES' DEPARTMENT.

EDUCATION OF GIRLS.

The Journal of Health, conducted by an association of Physicians, and published in Philadelphia, has reached its seventh number. We copy the subjoined article on the Physical Education of girls, from this excellent and popular periodical. We rarely meet with so much good advice to parents and communicated in such a free, and correct style of writing, in so small a compass. It is a very mistaken notion, which many parents cherish, to suppose that the physical education of girls can be promoted by debarring them from the free enjoyment of air and exercise. They will inevitably contract lazy and languid habits, and, joined with them, a peevishness of disposition, which will attend them through life. We will give the article in question, however, without further remark.

In the physical education of children, it is not sufficient to consult merely their present ease and well-being; but attention is equally due to whatever is calculated to promote the vigour and usefulness of their future lives, by strengthening the constitution, preserving the limbs in the free exercise of all their motions, and guarantying the system from the deleterious influence of those agents by which it is to be constantly surrounded.

Throughout the whole animal kingdom, the young are prompted by an instinctive impulse to almost constant exercise: conformable to this intimation of nature, the infancy of man should be passed in those harmless gambols which exercise the limbs, without requiring any minute direction from the head, or the constant guidance of a nurse.

It is well known to physicians, that when attempts are made in early youth, to interfere with the natural movements and exercise of the body,—when, from a false idea of improving the shape, or giving grace to the carriage, children are confined to any particular position for too long a period,—they become restless and uneasy, and their muscles acquire tricks of involuntary motion. Twitching of the features, gesticolations of the limbs, or even dangerous and permanent deformity, may be the result of such unnatural restraint.

From exercise and the free use of pure air, no child should be debarred: upon these depend, in a great measure, the health, vigor, and cheerfulness of youth; while they contribute essentially to the permanence of the same blessings during adult life.

Error in this respect, it is true, is but of occasional occurrence in the physical education of boys. But how often has an over anxiety for delicacy of complexion in a daughter, or the apprehensions that her limbs may become coarse and ungraceful, and her habits vulgar, been the means of debarring her from the enjoyment of either air or exercise to an extent sufficient to ensure the health and activity of the system? The consequence is, that too many females acquire in infancy a feeble, sickly and languid habit—rendering them capricious and helpless, if not the subjects of suffering, through the whole course of their lives.

The bodily exercises of the two sexes ought, in fact, to be the same. As it is important to secure to both, all the corporeal advantages which nature has formed them to enjoy, both should be permitted, without control, to partake of the same rational means of insuring a continued flow of health and animal spirits, to enable their systems to perform perfectly all the functions of life. Girls should not therefore be confined to a sedentary life within the precincts of the nursery, or at best, permitted a short walk, veiled and defended from every gleam of sunshine, and from every breath of air. The unconstrained enjoyment of their limbs and muscles in the open air, without a ligature to restrain the freedom of their motions, or an ever-watchful eye to curb the lively joy of their unclouded spirits, is equally important to their health and well-being, as to that of their brothers.

To hope to communicate graceful form and motions to the limbs of a child, health and vigor to its constitution, and cheerfulness to its spirits, by confinement, belts, ligatures, and splints, superadded to the lessons of the posture-master, is about as rational as would be the attempt to improve the beauty and vigor of our forest trees, by transferring them to the green-house, and extending their branches along an artificial frame work.

The first occupations of the day, for children, should be abroad, for the benefit of inhaling the morning air. Every person who notices the fact, will be struck with the difference in the health and freshness of complexion, and cheerfulness of feature, exhibited by the child who has spent some time in out-door exercise before its morning meal and task, and the one who passes immediately from its couch to the breakfast table, and thence to study. Children are fond of early rising, when their natural activity of disposition, and disinclination to remain long in a state of quiet have not been counteracted by habits of indulgence.

As much of the day should be passed in the open air as the weather will permit, and is compatible with those necessary avocations which call for attendance within doors. Nor are we inclined to limit this out-door exercise, in respect to girls, to the season of summer alone. Though female children, as generally educated, may not be able to bear the extremes of heat and cold as well as boys; yet, by proper management, they may be enabled to sustain with as little inconvenience; the transitions of the seasons. An habitual use of the cold bath, when no circumstances are present to forbid its employment, while it contributes to the health of the system generally, is an effectual means of removing that delicacy of constitution which renders an exposure to cold alike disagreeable and prejudicial.

MISCELLANEOUS.

THE FINANCES.

The Annual Report from the Treasury Department was yesterday, says the National Intelligencer of the 16th, received in both House of Congress.

We have condensed, in the subjoined statements, the substance of the information which it furnishes touching the state of the Finances, which, we hope, will be acceptable to our readers. They embrace the receipts and expenditures, actual and estimated, for the current year; the state of the public debt; and the estimate of receipts and expenditures for the year to come.

Receipts and Expenditures.

The receipts into the treasury from all sources during the year 1827, were		$22,966,363 96
The expenditures for the same year, including the public debt, were		22,656,764 04
The balance in the treasury on the 1st January, 1828, was		6,668,286 10
In 1828, the receipts were		24,789,463 01
Making an aggregate of		31,457,749 71
The expenditures for the year 1828, were		25,485,313 90
Leaving a balance in the treasury, January 1, 1829, of		5,972,435 81
The receipts during the three first quarters of the *present year*, are estimated at		19,437,230 98
The receipts for the fourth quarter are estimated at		5,165,000 00
Making the aggregate of		30,574,666 79
The expenditures for the three first quarters have amounted, by estitimate, to	18,919,114 05	
The expenditures for the fourth quarter, including $3,689,542 93 on account of public debt, are estimated at	7,245,481 05	
		26,161,595 10
Leaving in the Treasury on the first of January next, an estimated balance of		4,410,071 69

The Public Debt.

The payments made and to be made, on account of the public debt, for the year 1829, amount to	12,405,005 80
Of which 9,841,011 55 is on account of the principal of the debt, leaving the total debt, on the 1st of Jan. 1830,	48,565,406 50

This debt is redeemable as follows:

In 1830 - - - - -	8,017,695 51
1831 - - - -	6,018,900 72
1832 - - - - -	7,227,363 97
1833 - - - -	2,227,363 98
1834 - - - - -	4,735,296 30
At pleasure of Government	20,296,249 45

As there will, during the above years, be more money applicable to the redemption of debt, than the United States have contracted to pay, the Secretary suggests the redemption of the 5 per cent. Stock subscribed to the Bank of the United States, and the authorising the Commissioners of the sinking fund to purchase of the three per cents when it can be done on favorable terms.

Domestic Exports.

The value of Domestic articles exported for the year ending 30th September last, is estimated at $55,800,000, being 5,130,331 more than in the preceding year,

Estimates for Next Year.

The estimate of receipts for 1830, is as follows:

From Customs	22,000,000	
Lands	1,200,000	
Bank Dividends	490,000	
Incidental	150,000	
		$23,840,000 00
The expenditures, including 11,500,000 applicable to the Public Debt, are estimated at		28,755,526 67

The balance which will be in the Treasury on the 1st January, 1831, is estimated at 4,494,545 02, an amount, it will be seen, different very little from the amount of estimated balance on the 1st January next.

Trade of the Mississippi.

The following statement shows the increase of trade in the valley of the Mississippi, for the last two years, as exhibited by the amount of products carried to New Orleans.

		1826.	1827.	1828.
Bacon	hhds.	470	1,533	8,097
Do	casks	202	554	1,050
Do	boxes	143	274	1,190
Hams	hhds.	463	1,011	1,433
Beef	bbls.	1,203	1,792	6,622
Flour	bbls.	120,094	131,096	152,593
Lard	kegs	51,053	85,865	115,685
Do	bbls.	344	855	1,085
Lead	pigs	86,242	196,405	183,712
Pork	bbls.	33,632	25,467	35,815
Do	bulk	999,853	291,500	863,690
Tobacco	hhds.	19,885	31,704	30,224
Whiskey	hhds.	10,525	35,982	44,507

All other articles of western product in the same proportion.

EXTRAORDINARY DOG.

After what we have seen of learned pigs and military birds, we can believe almost any thing about animals; however, the following anecdote told us by a Spanish gentleman, who himself witnessed the facts, are more singular than any thing we ever heard. General Octavi n, one of Napoleon's officers taken by the Spanish, was for a long time kept prisoner at Centa garrison, on the Straits of Gibraltar. His favorite companion was a remarkable water-dog. One day the General attempted to escape by swimming—he was discovered and pursued. The dog having received instructions from his master, siezed his hat, and holding it up in his teeth, swam at a distance from his master, and in this way actually decoyed his pursuers for some time. The dog being caught, the deception was, of course, discovered; and both were carried back to prison. Here this remarkable animal continued to be his friend and factor. If he was ordered to carry a note and bring back an answer, it was done. He understood whatever was said in his presence; and when the general wished for the attendance of his barber, or other person accustomed to serve him, the dog would go for him. If money was given him to buy bread, he would go straightway to the baker's and bring just as much as he was ordered, and no more. One day the general gave him four cents done up in a silk handkerchief, and told him to go to the market and buy one pound of fish. The dog went directly to the fish stall, and having patted his paws on the bench and laid down the money, waited patiently while the fish was weighing. The fishmonger, thinking it easy to deceive such a customer, ordered his boy to give him but three-quarters of a pound. Whether the dog knew the weights by sight, or saw any suspicious expression in the man's face, or actually understood the meaning of his words, is uncertain; but nothing could induce him to take the fish, after it was weighed; when ordered to do so, he perpetually answered with a short, angry growl; and the man was obliged to give him good weight, before he could force him away. This extraordinary animal attracted so much notice, that his master was induced to teach him to write, by holding a pen with both his paws. He succeeded wonderfully in this attempt; and perhaps this dog might have produced a popular book, (as other puppies have done,) had not the accursed ignorance of the Spanish priests condemned the interesting animal to death, from the very philosophic conclusion that no dog could possess so much more intelligence than they did, without "the devil helped him." General Octavian still remained in prison at the peace in 1814, and it is not known to us what became of him.

Preservation of Grain in Reservoirs of Clay.

A German, M. Fischer, in the *Archiv fur die gesamte Naturlehre*, tom. iv. No. 1, communicates the following plan, pursued by him in preserving grain. He erected with unburnt bricks, a square building, 28 feet on each side, and 35 feet high; the walls 3 feet thick, and the bricks well conjoined by means of clay. The floor, also, was formed of worked clay, and raised a foot above the level of the surrounding ground. This tub, as it were, being covered with a simple roofing, and thatched, and the brick work completely dry, 1100 sacks of dry wheat were poured into it: the wheat was covered with straw, and over this straw was placed a layer of dry clay, a foot thick, thoroughly trodden and beaten down. Several years afterwards, on the opening of this magazine, the wheat was found dry, and perfectly good; and, what is more, is said to have possessed, for the purposes of making bred and pastry, qualities, far superior to those of wheat preserved in magazines admitting air. [*London Mag.*

Manufacture of Scotch Whiskey.

It is a remarkable fact, says major-general Stewart; in an article on the prevention of smuggling in the Highlands, inserted in the Quarterly Journal of Agriculture, that a spirit of the best quality and flavour has been distilled by men with their apparatus at the side of a burn, and, perhaps, changing weekly from fear of discovery; malting on the open heath far up the hills, and hurrying on the whole process to avoid detection; yet, with all these disadvantages, they received the highest price in the market for the spirit thus manufactured. The quantity might, perhaps, be less than what could be produced by a more regular process of distillation; but then the liquor was so much superior in flavour and quality, as to compensate for the deficient quantity. Several of those men have been employed, by way of experiment, in a licensed distillery on the estate of Garth, with directions to proceed in their own way, only to be regulated by the laws under the control of an officer; yet, with the advantage of the best utensils, the purest water, and the best fuel, they produced a spirit quite inferior in quality and flavour to what they made under the shelter of a rock, or in a den, and it sustained neither the same price nor character in the market. [*Quart. Journ. Agri.*

The Irish Post Office have entered into a contract with Sir James Anderson by which he undertakes to convey the mails throughout Ireland at the rate of twelve miles an hour, in coaches impelled by steam, calculated to carry two or three passengers, in addition to the coachman and guard. This invention of Sir James Anderson, for which he has obtained a patent, has seldom been exhibited out of the yard in which it was constructed; but it is said to bear very little resemblance to the drag coach of Mr. Gurney. The contract between the Irish Post Office and Sir James is understood to be for fourteen years, and the only pecuniary stipulation made by him is, that he shall receive half the money which the government may save by adopting his system. Sir James will commence operations by carrying the mails between Howth and Dublin during the present month.—The road is level and good, and the distance not more than nine or ten miles. [*Alex. Gaz.*

RECIPES.

CROUP.

For this disorder, so fatal to children, M. Bretonneau, a medical man at Tours, appears to have discovered a certain cure by blowing alum into the throat of the child through an instrument invented for the purpose. In some cases two or three repetitions of this treatment are sufficient; in others five or six are necessary. Numerous children, rapidly falling victims to this frightful disorder, after the exhibition of the antiphlogistic and other supposed remedies, have been cured by M. Bretonneau.

DYSPEPSIA.

Fresh air, exercise and occasional fasting, are the best and cheapest remedies for *dyspepsia*. The dyspeptic man is generally entitled to little pity. If he will not *eat less and exercise more*, the fault is with himself. Dyspepsia is the usual accompaniment of indolence and gluttony. Let therefore none who value their reputation complain of it. Farmers, mechanics, and others who earn their bread by the sweat of their brow, find in their industrious and temperate habits a certain preventive of such diseases.

HARNESS-MAKER'S JET.

Take one dram of indigo, one quarter of an ounce of isinglass, one half an ounce of soft soap, four ounces of glue, one pennyworth of logwood raspings, and one quart of vinegar; boil the whole together over a slow fire till reduced to one pint. A small quantity is then to be taken up on a piece of clean sponge, and thinly applied to harness, boots, &c. taking care that they are previously well cleaned.

TO TAKE INK SPOTS OUT OF MAHOGANY.

Apply spirits of salts with a soft bit of sponge, and the ink will soon disappear if done once or twice at short intervals.

FURNITURE OIL.

An excellent furniture oil will be obtained by simmering together, in an earthen pipkin, one ounce of roach alum, and one pint of cold-drawn linseed oil, for a quarter of an hour. When used, it should be well rubbed off with a linen cloth, and by repeating the process you will in a few hours obtain a most beautiful and durable polish.

THE FARMER.

Baltimore, Friday, December 25, 1829.

☞ The Militia.—It is to be hoped that amongst the first acts of the approaching session of the Maryland Legislature, will be one for repealing the laws, that require *musterings of the militia;* or militia trainings as they are called in New England. These worse than useless parades, have been recently done away with in several of the Eastern states, and with universal approbation, as far as we may judge by the public papers. We do not know whether the same law prevails for the country as for Baltimore city; perhaps to shew the favour by which that city is usually regarded, the fines are heavier and the law more rigorous towards its inhabitants; but we believe that every master workman, and every man of sound observation, will unite in the opinion that the laws on this subject are highly pernicious and exceedingly unjust. Every sort of business is interrupted, apprentices must turn out on fixed days, acquiring habits of idleness and dissipation, or their masters must pay their fines; the industrious mechanic must throw away the time necessary to the maintenance of his family or be fined in the same amount as the most opulent citizen. It is a poll tax of the most positive and odious character, and strange to tell, enacted and permitted to remain on the statute books in times when so many things more valuable and worthy of public encouragement, are denied existence or blighted, by a love of popularity almost as universal as it is vulgar; not the patriotic love of elevated reputation which ought only to be the reward of superior talents usefully employed; but that gross pursuit of place, which leads the demagogue to address himself by the lowest means to men of the lowest order.

For such men these militia musterings answer as convenient occasions for shewing off their liberality by the distribution of still burnt whiskey, commending *themselves* most modestly at the same time as of *all* men the "genteelest, the wisest, the discreetest, best!"

Were it true that the militia is the cheapest, instead of being as it is the dearest defence of nations, is it not bad enough in time of war and its exigencies to make the same requisition on the poor man, who lives by his daily labour, as on the rich one whose property is to be defended? But under the existing laws, in profound peace, all have to pay the same tax; or, which is the same thing, to give the same portion of their time, for "time is money," and more particularly so with the labouring man.

If any body would argue, that in throwing out reflections on this subject, we are departing from the proper subjects of this journal, let him take the case of a labouring man in the country who must pay his hard earned money, or go to one of these drum beating, whiskey drinking musters; let him calculate the time expended, the neglect of his domestic concerns in his absence, and the danger of contracting bad habits, and then say, whether, *in the aggregate*, the evil is not of sufficient magnitude to call for the repeal of laws that compel the people, under heavy penalties, to dissipate precious time, where even the military smattering acquired, is as much worse than total inexperience, as fanaticism and false doctrine are worse than downright ignorance.

Latest Foreign News.

By arrivals from France and England we have Paris dates to the 1st, and London and Liverpool to the 17th November. Some material changes have taken place in the French ministry. Prince Polignac, who is spoken of by the *Moniteur* as the leader of the moderate party, has been elevated to the Presidency of the Council of Ministers. M. de la Bourdonnaye resigned his place as Minister of the Interior, on this promotion, and was placed in the Privy Council. He was considered as the principal enemy of the liberals in the Ministry. Baron Montbel, Minister of ecclesiastical affairs and public instruction, succeeds to M. de la Bourdonnaye, and M. Ranville takes the place of Baron Montbel in ecclesiastical affairs.

The Paris papers, under the head of Madrid, relate an account of a curious attempt at assassination. Don Nazario Egina, Captain General or Galicia, received a letter, post marked "Leon," on attempting to open which, it exploded, shattering his hand, and wounding him severely in the face and chest. It is said that his life was only preserved by his head being luckly averted at the moment, for that, if he had been looking down upon the letter, he would certainly have been killed on the spot. This M. Egina is spoken of as a man of brutal temper, whose harshness and tyranny had made him many enemies. In relation to this curious circumstance the *Courier de Bayonne* contains the following details:

"Gen. Egina, Captain General of Galicia, stopped at Leon on his way to Madrid, whither he was going to be present at the King's marriage. A courier arrived at Leon, proceeded to the inn where the General lodged, and gave to the waiter several packets of despatches, saying—'Take care of these whilst I go to the post house, and, if I am not back in five minutes, deliver them to General Egina. When I return to receive payment for my journey, I'll give you something to drink.' Ten minutes having elapsed, the waiter delivered the despatches. Shortly after, an explosion was heard; the people of the inn having run up stairs they found the apartment filled with smoke, and the General stretched on the floor, with his hands and the lower part of his body horribly lacerated. Upon the packets being examined, it was found that the largest of them contained what is called an infernal machine, which exploded when the seals were broken. All the efforts employed to discover the courier who brought the packets have hitherto been ineffectual.

It was thought that the Russians would occupy the principalities and Trebisond. to guaranty the payment of the Turkish debt. The fate of Greece which is now deciding in the conferences of London, is also debated at Petersburg; and there is reason to believe that nation will speedily celebrate their regeneration, and that the new state will have frontiers proper to secure its independence and prosperity, for the Emperor and all his family earnestly interest themselves in their behalf.

The Cotton Market.

The Liverpool Albion of the 16th ult. says, the market was in a state of unusual activity during the past week. The sales reached the extraordinarily high number of nearly 25,000 bags, at an advance of one-eighth per lb. on some qualities of American cotton. An opinion is beginning to prevail, that the stock of cotton in the ports will, at the end of the present year, notwithstanding the heavy import, be smaller than it has been at the close of several preceeding years.

Liverpool, November 16.

The demand for cotton throughout the week has been extensive, and occasionally animated; the total transactions reaching 24,500 bags, (of which 2500 American have been on speculation, and 400 Brazil for shipment) at an advance on the prices of American descriptions of 1 8d per lb. The sales comprise 480 Sea island at 12d to 18d, with 30 Stained at 6d to 6¾—10,160 Bowed 5 1-8d to 6½d, with 25 at 6¾—2880 Orleans 5d to 7½d, with 10 at 8¼—6210 Alabama and Mobile 5d to 6¼d. There has been a very limited demand for tobacco, but prices keep steady.

With a good demand for new grain, and unusually small supplies, prices of almost every article of the trade are creeping up, and the market weekly becoming barer of granary stocks. Wheat since this day se'nnight must be noted 1d, and Oats ½d per bushel dearer. Barley is also rather worse to purchase. Some parcels of the latter, English new of fair malting quality, have brought 38s per Imperial quarter. There is little change in the value of Beans, Peas, or Indian Corn.—Prices of Oatmeal are unvaried; but Flour readily commands an advance of 1 per brl. The only transactions reported in bonded corn are a few sales for export in Oats at about 1s 6d per 45lbs. Fresh U. S. Flour, under lock, would readily bring our previous currency, but there are few sellers.

Corn and Flour.—The price of new French wheat, declined 2f. per sack of 200 ho. last market day. A sale of 136 brls. N. York flour has just been made at 37f. With respect to the duties mentioned in our last report, the following places of growth, are the only ones considered to be such, by the Director General of the Customs; Egypt, the ports of the Black Sea, of the White Sea, and of the Baltic, and the United States of America. Stock this day in first and second hands, viz.—Wheat, 54,000 ho; rye 10,000 ho; barley, 4,000 bo; flour 3,000 brls.

Cottons.—We have had a languid market, since our last, for Louisiana cottons, the finer sorts of which are fully two centimes lower; the other description of United States short staple barely maintain their prices: 101 bales Sea island of middling quality have changed hands at 2f.

The sales of the last ten days comprise 3744 bales, as follows: 1488 Louisiana at 87½ to 100; 1233 Uplands, Mobile, Alabama, or Tennessee at 80 to 92½; 101 Sea islands at 200; all these prices duty paid.

The arrivals, within the same period, have been 788 bales United States sorts, 965 bales Pernambuco, and 11 bales Senegal; together 1764 bales.

Prices Current in Boston, December 18.

Apples, best, bbl. 1.75 a 2.25. *Beans*, white, bushel 1.00 a 1.25. *Beef*, mess, bbl. 9.25 a—— ; cargo No. 1, 7.75 a ——; No. 2, 6.75 a —— *Butter*, inspected, No. 1, new, lb. .13 a .15. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.87 a 6.12; Genesee, 5.87 a 6.12; Rye, best, 3.62 a 3.87. *Grain*, Corn, bu. .62 a 63; Rye, .75 a .78; Barley .67; Oats .40 a .45. *Hogs'-Lard*, 1st sort, new, lb. .8 a 8.50. *Pork*, clear, bbl, 15 a 16; Navy, mess, 12.00 a 12.50; Cargo, No. 1. 12.00 a 12.50. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool*, Merino, full blood, washed, .38 a 40; do. do. unwashed, .20 a .25; do. three-fourths, washed, .30 *a* .33, do. half blood, .28 *a* .30; do. quarter, washed, .25 *a* .26; Native, washed .25 a .26; Pulled, Lambs', 1st sort, .35 a 36; do. 2d sort, .26 a .27; do. Spinning, 1st sort, 30 a .32.

Prices Current in New York, December 19.

Bees-wax, yellow .23 a —— *Cotton*, New Orleans .10 a .12½; Upland, .8½ a .10½; Alabama, .8½ a 11. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask 9.75 a—; clean 10.25; *Flour*, N. York, bbl. 5 a 5 12½.—Canal 5.25 a 5.62½; Balt. Howard st. 5.62½ a 5.75; Richmond city mills, 5.62½; country, 5. a 5.12½; Alexand'a, 5.12½ a 5.50; Fredericksborg 5.— a ——; Petersburg. 5.— a ——. Rye Flour, 3.25 a ——; Indian Meal, per bbl. 2.75 a ——; per hhd 13. 50 a——. *Grain*, Wheat, North river Vir. .1 a —; —- a —-; Rye, North, — a 65; Corn, Yel. Nor. .48 a 58; Barley, 66 a .67; Oats, South and North, .28 a .38, Peas, white, dry, 7 bu.——; Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8 a 8.50; prime 5.75 a 6.25; cargo 4.25 a 4.50; Butter, N. York, .12 a .15; shipping, .8 a 11; Lard, .5 a .6; Pork, mess 11.50 a 12.; prime 9.25 a 9.50; cargo—— a —-; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* 2.50 a 3. *Tobacco*, Virginia .4 a .6½ a 7. Kentucky, .4 a .6. a 7.

BERGAMI.

For Sale, or to be Farmed out for the next year, a large well proved Young JACK, imported from Malta. Inquire of the Editor of the American Farmer.

ALMANAC.

1829-30. Dec.—Jan.	Sun. Rises.		Sun. Sets.		Length of days.		Moon sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 26	7	23	4	37	9	14	5	39
Sunday,........ 27	7	23	4	37	9	14	6	40
Monday,....... 28	7	23	4	37	9	14	7	41
Tuesday,...... 29	7	23	4	37	9	14	8	51
Wednesday,.. 30	7	22	4	38	9	16	9	57
Thursday,..... 31	7	22	4	38	9	16	11	4
Friday,......... 1	7	22	4	38	9	16	rises.	

Moon—New Moon, 25th 10 h. 29 m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There is no material change in any of the staple articles of our market. Flour and grain are dull at quotations.

Tobacco.—Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12.00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week comprise 383 hogsheads Maryland, 14 hogsheads Ohio, and 61 hhds. Va.—Total 458 hhds.

Flour—best white wheat family, $6.00 *a* 6.50—super. Howard st. 4.81¼ *a* —— city mills, 4.50 *a* —; Susquehanna, —. Corn Meal, bbl. 2.25 *a* 2.37½—Grain, best red wheat, .80 *a* .85; best white do. .90 *a* .96; ordinary to good, .70 *a*. .80—Corn, old white, .36 *a* —; yel. .36 *a* —; new .30 *a* ——Rye, .48 *a* 49—Oats, .28.—Beans, 90 *a* 1.10—Peas, .64 *a* —— Clover seed, 4.50 *a* ——Timothy, 2.50——Orchard Grass, 2.00 ——Herd's, — *a* 1.50—Lucerne .37½ *a* .50 lb.—Barley, .50 *a* .55—Flaxseed, 1.10—Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .23½ *a* .—; in bbls. .25 *a* ——Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .28 *a* .30—full do. .30 *a* .35, accord'g to qual.—Hemp, Russia, ton, $220 *a* 225; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, — *a* 6.25; No. 2, 5.75 *a* —— No. 3, 3.75 *a* 4.50 —Bacon, hams, Balt. cured, .9 *a* .9½—Feathers, .32 *a*.——Plaster Paris, cargo price per ton, 4.62½, ground, 1.25 bbl.—Prime Beef on the hoof, .4— *a* 5——Pork, 4.75 *a* 5.25—Pine Wood, by the vessel load, 2.25 to —; by the single cord, 2.75—Oak Wood, 3.37½ to —— Hickory, 5.25.

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AGRICULTURE.

WASHINGTON'S AGRICULTURAL NOTES.

Notwithstanding the numerous public avocations and duties, in which Washington was engaged for a large portion of his life, it is known, that to no one object did he give so much of his time and attention is to Agriculture. The frequency and minuteness of his directions to his managers on this head, and the unceasing correspondence which he kept up during his absence from Mount Vernon, are truly astonishing, when it is considered in what important and absorbing interests his mind was perpetually occupied. We have selected a few particulars from his manuscript papers, which, at the same time they illustrate his agricultural habits, may in part serve as practical hints, or salutary maxims, to farmers in general. [*Amer. Almanac.*

1. Directions to the Manager of his Farm.

A *system* closely pursued, although it may not in all its parts be the best that could be devised, is attended with innumerable advantages. The conductor of the business, in this case, can never be under any dilemma in his proceedings. The overseers, and even the laborers, know what is to be done, and what they are capable of doing, in ordinary seasons. The force to be employed may be in due proportion to the work which is to be performed, and a reasonable and tolerably accurate estimate may be made of the product. But when no plan is fixed, when directions flow from day to day, the business becomes a mere chaos, frequently shifting, and sometimes at a stand, for want of knowing what to do, or the manner of doing it. Thus is occasioned a waste of time, which is of more importance than is generally imagined.

Nothing can so effectually obviate the evil as an established *system*, made known to all who are actors in it, that all may be enabled thereby to do their parts to advantage. This gives ease to the principal conductor of the business, and is more satisfactory to the persons who immediately overlook it, less harassing to the laborers, as well as more beneficial to the employer.

Under this view of the subject, the principal service, which you can render me, is to explain to the overseers (who will be furnished with duplicates) the plan, in all its parts, which is hereafter detailed; to hear their ideas with respect to the order in which the different sorts of work therein pointed out shall succeed each other, for the purpose of carrying it on to the best advantage; to correct any erroneous projects they may be disposed to adopt; and then to see that they adhere strictly to whatever may be resolved on, and that they are always (except when otherwise permitted) on their farms, and with their people. The work, under such circumstances, will go on smoothly; and, that the stock may be well fed, littered, and taken care of according to the directions, it will be necessary to inspect the conduct of the overseers in this particular, and those also whose immediate business it is to attend upon them, with a watchful eye; otherwise, and generally in severe weather, when attention and care are most needed, they will be most neglected.

Economy in all things is as commendable in the manager, as it is benefical and desirable to the employer; and, on a farm, it shows itself in nothing more evidently, or more essentially, than in not suffering the provender to be wasted, but, on the contrary, in taking care, that every atom of it is used to the best advantage; and, likewise, in not permitting the ploughs, harness, and other implements of husbandry, and the gears belonging to them to be unnecessarily exposed, trodden under foot, run over by carts, and abused in other respects. More good is derived from attending to the minutiæ of a farm, than strikes people at first view; and examining the farm-yards, fences, and looking into the fields, see that nothing is there but what is allowed to be there, is oftentimes the means of producing more good, or at least of avoiding more evil, than can be accomplished by riding from one working party, or one overseer, to another. I have mentioned these things not only because they have occured to me, but because, although apparently trifles, they prove far otherwise in the result.

To request that my people may be at their work as soon as it is light, work till it is dark, and be diligent while they are at it, can hardly be necessary, because the propriety of it must strike every manager, who attends to my interest, or regards his own character, and who, on reflecting, must be convinced that lost labor is never to be regained. The presumption is, that every laborer does as much in twenty-four hours, as his strength, without endangering his health or constitution, will allow. But there is much more in what is called head work, that is, in the manner of conducting business, than is generally imagined. For take two managers, and give to each the same number of laborers, and let the laborers be equal in all respects. Let both these managers rise equally early, go equally late to rest, be equally active, sober, and industrious, and yet, in the course of the year, one of them, without pushing the hands under him more than the other, shall have performed infinitely more work. To what is this owing? Why, simply to contrivance, resulting from that forethought and arrangement, which will guard against the misapplication of labor, and doing it unseasonably. In ploughing, for instance, though the field first intended for it, or in which the ploughs may actually have been at work, should, from its situation, be rendered unfit (by rain or other cause) to be worked, and other spots, even though the call for them may not be so urgent, can be ploughed, this business ought to go on, because the general operation is promoted by it. So with respect to other things, and particularly carting, where nothing is more common, than, when loads are to go to a place, and others to be brought from it, though not equally necessary at the same moment, to make two trips, when one would serve. These things are only mentioned to show, that the manager, who takes a comprehensive view of his business, will throw no labor away.

For these reasons it is, that I have endeavoured to give a general view of my plans, as to the business of the year, that the concerns of the several plantations may go on without application daily for orders, unless it be in particular cases, or where these directions are not clearly understood.

2. Particular Directions for Cultivating a Farm near Mount Vernon.

The directions alluded to in the preceding article, for the management of the farms in the neighbourhood of Mount Vernon, were given in December, 1799, a few days before Washington's death, and intended for the year 1800. We shall select here the part relating to one farm only (called the *River Farm*,) which may serve as a sample of the whole.

Crops for the River Farm, and Operations thereon, for the year 1800.

Field No. 1,—Is now partly in wheat; part is to be sown with oats; another part may be sown with peas, broad cast; part is in meadow, and will remain so; the most broken, washed, and indifferent part is to remain uncultivated, but to be harrowed and smoothed in the spring, and the worst portions (if practicable) to be covered with litter, straw, weeds, or any kind of vegetable rubbish, to prevent them from running into gullies.

No. 2.—One fourth is to be in corn, and to be sown with wheat; another fourth in buckwheat and peas, half of it in the one, and half in the other, sown in April, to be ploughed in as green dressing, and by actual experiment to ascertain which is best. The whole of this fourth is to be sown with wheat also; another fourth part is to be naked fallow for wheat; and the other and last quarter to be appropriated for pumpkins, cymlins, turnips, Yateman peas, (in hills,) and such other things of this kind as may be required; and to be sown likewise with rye, after they are taken off, for seed.

No. 3,—Is now in wheat, to be harvested in the year 1800; the stubble of which, immediately after harvest, is to be ploughed in and sown thin with rye; and such parts thereof as are low, or produce a luxuriant growth of grain, are to have grass-seeds sprinkled over them. The whole for sheep to run on in the day (but housed at night) during the winter and spring months. If it should be found expedient, part thereof in the spring might be reserved for the purpose of seed.

No. 4,—Will be in corn, and is to be sown in the autumn of that year with wheat, to be harvested in 1801; and to be treated in all respects as has been directed for No. 3, the preceding year. It is to be manured as much as the means will permit, with such aids as can be procured during the present winter and ensuing spring.

Nos. 5, 6, 7, and 8,—Are to remain as they are, but nothing suffered to run upon them; as ground will be allotted for the sole purpose of pasturage, and invariably used as such.

Clover Lots.

No. 1,—Counting from the Spring Branch is to be planted in potatoes.

No. 2,—That part thereof which is now in turnips is to be sown with oats and clover; the other part, being now in clover, is to remain so until it comes into potatoes, by rotation.

No. 3,—Is also in clover at present, and is to remain so, as just mentioned, for No. 2.

No. 4,—Is partly in clover and partly in timothy, and so to be, until its turn for potatoes.

The rotation or these lots invariably is to be, 1. Potatoes, highly manured; 2. Oats, and clover sown therewith 3. Clover; 4. Clover. Then to begin again with potatoes, and proceed as before. The present clover lots must be plastered.

All green sward, rough ground, or that which is heavily covered with weeds, bottle brush grass, and such things as being turned in will ferment, putrefy, and meliorate the soil, should in autumn be ploughed in, and at such times in winter as can be done while the ground is dry, and in condition for it.

Pasture Grounds.

The large lot adjoining the negro houses and orchard, is to have oats sown on the potato and pumpkin ground; with which, and on the rye also in that lot, and on the melon part, orchard-grass seeds are to be sown; and thereafter to be kept as a standing calf pasure, and for ewes (which may require extra care) a yeaning, or after they have yeaned.

The other large lot, northeast of the barn lane, is to be appropriated *always* as a pasture for the milch cows; and probably working oxen during the summer season.

The woodland, and the old field commonly called Johnston's, are designed for *common* pasture, and to be so applied always. To which, if it should be found inadequate to the stock of the farm, field No. 8, and the woodland therein, may be added.

Meadows.

Those already established and in train must continue, and the next to be added to them is the arms of the creek, which runs up to the spring-house, and forks, both prongs of which must be grubbed up, and wrought upon at every convenient moment when the weather will permit, down to the line of the ditch, which encloses the lots for clover, &c.

And as the fields come into cultivation; or as labor can be spared from other work, and circumstances will permit, the heads of all the inlets, in them must be reclaimed, and laid to grass, whether they be large or small, forasmuch as nothing will run on, or can trespass upon or injure the grass; no fencing being required.

Mud for Compost.

The season is now too far advanced, and too cold to be engaged in a work, that will expose the hands to wet; but it is of such essential importance, that it should be set about seriously and with spirit next year, for the summer's sun and the winter's frost, to prepare it for the corn and other crops of 1801, that all the hands of the farm, not indispensibly engaged in the crops, should, so soon as corn planting is completed in the spring, be uninterruptedly employed in raising mud from the Pocosons, and from the bed of the creek, into the scow; and the carts, so soon as the manure for the corn and potatoes in 1800 is carried out, are to be incessantly drawing it to the compost heaps in the fields, which are to be manured by it. What number of hands can be set apart for this all-important work, remains to be considered and decided upon.

Penning Cattle and folding Sheep

On the fields intended for wheat, from the first of May, when the former should be turned out to pasture, until the first of November, when they ought to be housed, must be practised invariably; and to do it with regularity and propriety, the pen for the former, and the fold for the latter, should be proportioned to the number of each kind of stock; and both these to as much ground as they will manure sufficiently in the space of a week for wheat, beyond which they are not to remain in a place except on the poorest spots; and even *these* had better be aided by litter or something else, than to depart from an established rule, of removing the pens on a certain day in every week. For in this, as in every thing else, system is essential to carry on business well, and with ease.

Feeding.

The work-horses and mules are always to be in their stalls, and all littered and cleaned, when they are out of harness; and they are to be plenteously fed with cut straw, and as much chopped grain, meal, or bran, with a little salt mixed therewith, as will keep them *always* in good condition for work; seeing also, that they are watered as regularly as they are fed; this is their winter feed. For spring, summer, and autumn, it is expected, that soiling them on green food, first with rye, then with lucern, and next with clover, with very little grain, will enable them to perform their work.

The oxen, and other horned cattle, are to be housed from the first of November until the first of May; and to be fed as well as the means on the farm will admit. The first (oxen) must always be kept in good condition; housed in the stalls designed for them; and the cows (so many of them as can find places) on the opposite side. The rest, with the other cattle, must be in the newly erected sheds; and the whole carefully watered every day; the ice, in frozen weather, being broken, so as to admit them to clean water.

With respect to the sheep, they must receive the best protection that can be given them *this* winter; against the next, I hope they will be better provided for.

And with regard to the hogs, the plan must be, to raise a given number of *good ones*, instead of an indiscriminate number of *indifferent ones*, half of which die or are stolen before the period arrives for putting them up as porkers. To accomplish this, a sufficient number of the best sows should be appropriated to the purpose; and so many pigs raised from them as will insure the quantity of pork, which the farm ought to furnish.

Whether it will be most advisable to restrain these hogs from running at large or not, can be decided with more precision after the result of those *now* in close pens is better known.

The exact quantity of corn used by those, which are now in pens, should be ascertained and regularly reported, in order to learn the result.

Stables and Farm Pens.

These ought to be kept well littered, and the stalls clean; as well for the comfort of the creatures that are contained in them, as for the purpose of manure; but as straw cannot be afforded for this purpose, *leaves* and such spoiled straw or weeds as will not do for food, must serve for the stables; and the first, that is, leaves and corn-stalks, is all that can be applied to the pens. To do this work effectually, let the corn-stalks be cut down by a few careful people with sharp hoes, so low as never to be in the way of scythes at harvest; and whenever the wheat will admit carts to run on it without injury, let them be brought off and stacked near the farm pens. In like manner let the people, with their blankets, go every evening, or as often as occasion may require, to the nearest wood, and fill them with leaves for the purposes above mentioned; bottoming the beds with corn-stalks, and covering them thick with leaves. A measure of this sort will be, if strictly attended to, and punctually performed, of great utility in every point of view. It will save food, make the cattle lie warm and comfortable, and produce much manure. The hogs also in pens must be well bedded in leaves.

Fencing.

As stock of no kind, according to this plan, will be suffered to run on the arable fields or clover lots, (except sheep in the day on the rye fields, as has been mentioned before,) partition fences between the fields, until they can be raised of quicks, may be dispensed with. But it is of great importance, that all the exterior or outer fences should be substantially good; and those also which divide the common, or woodland pasture, from the fields and clover lots, are to be very respectable.

To accomplish this desirable object in as short a time as possible, and with the smallest expense of timber, the post and rail fence which runs from the negro quarters, or rather from the corner of the lot enclosing them, up to the division between fields Nos. 7 and 8, may be placed on the bank (which must be raised higher) running to the creek. In like manner, the fence from the gate, which opens into No. 2, quite down to the river, along the cedar hedge row, as also those rails which are between Nos. 1 and 2, and between Nos. 2 and 3, may all be taken away, and applied to the outer fences, and the fences of the lanes from the barn into the woodland pasture, and from the former (the barn) into No. 5; for the fences of all these lanes must be *good*, as the stock must have a free and uninterrupted passage along them, at all times, from the barn-yard to the woodland pasture.

All the fencing from the last mentioned place, (between me and Mr. Mason,) until it joins Mr. Lear's farm, and thence with the line between him and me, until it comes to the river, will require to be substantially good; at its termination on the river, dependence must be placed in a water fence; for if made of common rails, they would be carried off by boatmen for fire-wood. The fences separating fields Nos. 1 and 8 from the woodland pasture must also be made good, to prevent depredations on the fields by my own stock.

Crops &c. for 1801.

No. 5, is to be in corn, and to be invariably in that article. It is to be planted (if drills are thought to be ineligible until the ground is much improved) in rows, 6 feet by 4, or 7 feet by 3½, the wide part open to the south. These hills are to be manured as highly as the means will admit; and the corn planted every year in the middle of the rows of the preceding year; by doing which, and mixing the manure and earth by the plough and other workings, the whole in time will be enriched.

The washed and gullied parts of this field should be levelled, and as much improved as possible, or left uncultivated. Although it is more broken than some of the other fields, it has its advantages. 1st, It has several inlets extending into it, with easy ascents therefrom. 2dly, It is convenient to the mud in the bed of the creek, whensoever (by means of the scow) resort is had thereto, and good landing places; and, 3dly, It is as near to the barn as any other, when a bridge and causeway shall be made over the spring branch. To these may be added, that it is more remote from squirrels than any other.

Nos. 6 and 7, or such part thereof as is not so much washed or gullied, as to render ploughing ineligible, are to be fallowed for wheat. One of which, if both cannot, is to have the stubble ploughed in and sown with rye, and the low and strong parts to have timothy or orchard-grass seeds, perhaps both, in different places, sprinkled over them, for the purpose of raising seed. On the rye pasture the sheep are to be fed in winter and spring, and treated in all respects as No. 3 in 1800.

In the Years 1802, 1803, *and so on.*

The corn ground remaining the same, two fields, in the following numbers, will be fallowed for wheat and treated in all respects as mentioned above; and if pumpkins, cymlins, turnips, peas, and such like growth, are found beneficial to the land, or useful and profitable for stock, ground may readily be found for them.

These are the great outlines of a plan, and the operations of it, for the next year, and for years to come, for the *river farm*. The necessary arrangements and all the preparatory measures for carrying it into effect ought to be adopted without delay, and invariably pursued. Smaller matters may, and undoubtedly will, occur occasionally, but none it is presumed, that can militate against it materially.

To carry it into effect advantageously, it becomes the indispensable duty of him, who is employed to overlook and conduct the operations, to take a prospective and comprehensive view of the whole business which is laid before him, that the several parts thereof may be so ordered and arranged, as that one sort of work may follow another sort in proper succession, and without loss of labor or of time; for nothing is a greater waste of the latter, and consequently of the former, (time producing labor, and labor money,) than shifting from one thing to another before it is finished, as if chance or the impulse of the moment, not judgment and foresight, directed the measure. It will be acknowledged, that weather and other circumstances may at times interrupt a regular course of proceedings, but if a plan is well digested beforehand, they cannot interfere long, with a man who is acquainted with the nature of the business, and the crops he is to attend to.

Every attentive and discerning person, who has the whole business of the year laid before him, and is acquainted with the nature of the work, can be at no loss to lay it out to advantage. He will know that there are many things which can be accomplished in winter as well as in summer; others, that spring, summer, and autumn only are fit for; in a word, use the wise man's saying, that "there is a time and a season for all things," and that unless they are embraced, nothing will thrive or go on smooth. There are many sorts of *in-doors* work, which can be executed in hail, rain, or snow, as well as in sunshine; and if they are set about in fair weather, (unless there be a necessity for it,) there will be nothing to do in foul weather; the people therefore must be idle. The man of prudence and foresight will always keep these things in view, and order his work accordingly, so as to suffer no waste of time or idleness. These same observations apply with equal force to frozen ground, and to ground too wet to work in, or which if worked will be injured there.

These observations might be spun to a greater length, but they are sufficient to produce reflection; and reflection, with industry and proper attention, will produce the end that is to be wished.

There is one thing, however, I cannot forbear to add, and in strong terms; it is, that whenever I order a thing to be done, it must be done; or a reason given at the time, or as soon as the impracticability is discovered, why it cannot be done, which will produce a countermand or change. But it is not for the person receiving the order to suspend, or dispense with its execution; and after it has been supposed to have gone into effect, to be told, that nothing has been done in it, that it *will* be done, or that it could not be done—either of these is unpleasant and disagreeable to me, having been all my life accustomed to more regularity and punctuality. Nothing but system and method are required to accomplish any reasonable requests.

SUGAR.

The sugar cane, *Arundo Saccharifera,* is a yellow jointed reed, from each joint of which springs a stem, of a fine straw colour. It attains various heights according to the fertility of the soil in which it is planted. The best soil is a reddish earth, on a clayey substratum, and in such soil it grows to the height of seven feet. The stalk of the cane contains a pithy substance, which possesses an abundance of juice, exquisitely but not cloyingly sweet. The stalk is about one inch in diameter, and the distance between the eyes from one to three inches. When perfectly ripe it is cut off near the surface of the earth, and that part which is left in the ground is suffered to grow and reproduce. Suckers or ratoons are, however, preferred in the West Indies, which are said to yield a much more rapid and frequently as profitable a crop as that of the parent cane. After the canes are cut they are conveyed to the mill. The mill generally used is a simple machine, composed of three upright cylinders about forty inches in length and twenty-five in diameter. Through these cylinders, the canes are compressed until the juice is completely drawn out and the canes perfectly pulverized. They are sometimes put in motion by water, but more frequently by mules. In th West Indies, the negroes who attend them ofte meet with serious accidents. Exhausted by fatigue and worn out by constant vigilance, they are ap to slumber over their labour, and at such time, th arm is frequently caught between the rollers, an the head, body and limbs, crushed in a moment, t atoms. The juice, after it has been expressed fron the cane, falls into a leaden bed, from which it i conveyed, through a wooden gutter, to the boilin house. The pulverized canes are used as fuel, and the ashes as a manure: hence no part of this valuable plant is entirely lost. The juice, after it has run into the boiling house is received into three copper clarifiers, of various dimensions. When the clarifier is filled with liquor, the lixivium of lime is applied to remove the superabundant acid. One pint of lime is generally allowed to one hundred gallons of liquor. There are also in the boiling house, besides the clarifiers, three boilers, diminishing in size from the *teache* to the clarifier. When the scum is formed on the surface the liquor is prevented from boiling by the removal of the fire and application of a damper. It is then permitted to remain until the scum becomes quite thick, after which it is conveyed to the large copper, through channel, completely clarified. In this copper the scum the liquor once more after it has been considerably reduced by evaporation. It is ladled into th third boiler, and from thence into the teache, an lastly into the cooler, which is a small woode trough, of a conic form. In the cooler the suga becomes crystallized, when it is carried to the cur ing-house, where it remains till the molasses drain from it. The sugar cane is said to contain one part of water, one of sugar, and one of mucilaginous gum, with some essential oil. When the mill is in operation the negroes, where the cane is cultivated, begin to regain their wonted vigour of body: sickness is banished, and its place supplied by the most vigorous health. Almost every animal in nature reaps some advantage from this inestimable sweet; and to all it is in an eminent degree salutary and nutritious. It may not be improper to add to this brief account of the growth of the cane and the manufacture of sugar, the process adopted in the West Indies in the preservation of Tamarinds, a fruit which grows abundantly in those islands, and forms an important article of commerce. This is done in sugar mills. The fruit, when perfectly ripe is taken out of the pod and placed in small casks, in layers; boiling syrup is then poured over them until the casks are thoroughly filled, when they are shut up, and all is completed and ready for exportation.

[*Washington Chronicle.*

CROPS OF SOUTH CAROLINA.

Extract of a letter from a gentleman in Charleston, South Carolina, to his friend in this city, dated 15*th Dec.* 1829.

"Your brother's crop will not be very bountiful in rice or cotton, though infinitely better than a great many planters; his corn we learn from his manager will equal at least *forty* bushels to the acre, and this is a very great crop for any thing short of the fertile swamps of the Congaree, Wateree, &c. The crop of cotton in this state is indeed short; what think you of two instances which at this moment present themselves to my recollection, of three bales long staple from eighty acres, and three and a half bales of the same from forty acres. One more of one of the best planters on the Sea Islands, who with 120 hands will make only twenty-five bales.

"The rice crops are generally good, but we see now the losses sustained by the gale of the 23d August, the bulk of straw in the barnyards does not yield a due quantity of rice, and when beat we find it shews the effect of the gale in the impaired quality. You must have forgotten almost all about rice and cotton, but this will remind you a little of the prevailing topics of our southern latitudes."

HORTICULTURE.

(From "Prince's Treatise on the Vine.")

WINE GRAPES.

PINEAU-FRANC.—Pr. Cat. No. 102.

Franc-pineau, Duh.
Bon plant.
Raisin de Bourgogne,
Maurillon noir,
Morillon noir,
Erroneously.
Pinet.
Pignolet.
Pinsale.
Pineaou.

Vitis *acinis minoribus, oblongis, dulcissimus,* Garid.

The bunch of this grape is small, of rather a conical form, supported by a very short peduncle, and formed of oblong berries closely set, of a flesh coloured red. The leaves are dark green, lightest beneath, and covered on both sides when they first expand with down, which is not the case with the Morillon noir; they are supported on long petioles, and are divided into three principal lobes, which are slightly indented on their edges.

The vine is not very productive, but its fruit has an excellent taste and produces the most delicate wines of Burgundy. The wood is red and the joints near to each other. It will be perceived that this grape is known by various names in the different French vineyards, and it is often confused with the other varieties of the Pineau or Morillon.

GRAY BURGUNDY.—Pr. Cat. No. 100.

Pineau gris.
Grisel blanc, Duh.
Petit muscadet.
Auvernat gris.
Rin gris.
Malwisie.
Pouilli.
Le Soli.
Le Grennelin.
Fromenteua.
Gentil gris.
Weiss klefeln griss.
Grau kloefner.
Bureau.
Gray Auvernat.

Vitis *achis, minoribus, dulcibus et griseis,* Garid.

This has leaves of a lively green hue and slightly lobed; the clusters are short, moderately large, composed of round berries which are pretty close, of a grayish colour, and of a sweet and perfumed flavour. There were vineyards formerly in France composed entirely of this grape, and the fine vineyard of Pouilli is still so in a great measure. It is also found in the vineyards of Provence, and is known in the different districts by a great variety of names, and often confused with other varieties as the synonymes evince. The white wine made from it is in high esteem, and deemed the third best in France. It abounds in alcohol and has much body, is clear and mellow with a fine bouquet. The vine is said to succeed best in a sandy or gravelly soil, and on inclined and warm expositions; but a celebrated vigneron has informed me that it will succeed in almost any situation that is open and airy. It is very hardy and one of the least difficult in point of culture, and in addition to its wine properties, is esteemed as a table fruit.

BOURGUIGNON NOIR, Duh.—Pr. Cat. No. 104.

Trousseau du Jura.
Tresseau.
Plant d'Arles.
Plant de Roi.
Boucarès.
Etrange.
Damas.
Grosse-serine.
Pied-rouge.
Côte rouge.
Gourdoux.
Rouge de Bourgogne.
Red Burgundy.

Vitis *acino oblongo, minus acuto, nigro et dulci,* Garid.

This grape has in its berry a great resemblance to the Pineau-franc, but it is less elongated in proportion to its size, and the bunches are not so compactly formed. Its leaves are rather obtuse at the apex, divided into five distinct lobes, regularly indented and supported upon a short very red petiole. This variety is also known under a great many common names, as is designated by the synonymes. It yields good crops, and succeeds well on strong soils, and is, in common with its congeners of the pineau family, deemed among the most valuable that are cultivated for wine.

BOURGUIGNON BLANC, Duh.—Pr. Cat. No. 105.

White Burgundy.
Pineau blanc.
Feuille ronde.
Picarneau.
Melé.
Gueuche blanc.
Menu.
Gouche.

Vitis *uvâ confetta, acino ovato, viridi lutescente.*

The leaf is large, slightly covered with down, and of a much paler green beneath than above, indented on its edge, but not distinctly lobed. The clusters are composed of berries somewhat oblong and very closely set, which become of a fine yellow colour at the period of maturity.

AUVERNAT ROUGE CLAIR.—Pr. Cat. No. 98.

Rose Burgundy.
Gris rouge.
Fromenteau, Sprenger.
Gentil rose?
Rothliehtner.

This grape is much cultivated in the vineyards of Champagne, in connexion with the Auvernat blanc and Auvernat gris, to form the far famed wine of that name. It resembles in its general qualities the other varieties of the same family, its principal variation being in its colour. It ripens also at the same time, maturing its fruit here early in September; the vine is hardy and of easy culture. In the vineyards of that part of France situated on the Rhine, it is extensively cultivated, and succeeds well, yielding abundant crops and affording excellent wine, which has much body and an aromatic flavour.

In addition to those described there are other varieties of the Pineau or Morillon family, such as the Morillon gros violet, Pineau de coulaige, Pineau fleuri, and various others. The Morillon panaché will be found under the head of striped Aleppo among the table grapes.

The appellations Pineau, Auvernat, and Morillon are often indiscriminately applied to different varieties of this family.—The varieties are also known by a greater number of names as synonymes than any other class, which arises from their being far more extensively cultivated, and from their having received new titles in the different localities to which they have been from time to time transplanted.

IMPORTATION OF FOREIGN PLANTS.

Col. Carr, proprietor of the Bartram Botanic Garden, near Philadelphia, has just received, through the agency of Mr. James Ronaldson, a valuable collection of plants of the south, transmitted from Mexico by the Hon. Mr. Poinsett and our worthy townsman Professor Keating. This collection embraces fifty species of the *cactus*, a genus distinguished in all its varieties from every other tribe by the most striking and interesting characteristics. Col. Carr having made his selections of a plant of each species, in accordance with the request of the donors, the residue will be sent to some other botanic establishment.

This liberal donation will be a valuable addition to the extensive collection at the Bartram Garden, and will give a new attraction to an establishment which previously possessed so many claims on the attention of the lovers of botany.

How much might our public agents abroad aid the cause of the natural sciences in this country by giving a small portion of their attention to the subject!

Mr. Prince, proprietor of the Linnæan Botanic Garden, at Flushing, L. I. has also received from the same gentlemen, an extensive collection of the most valuable trees and plants of the Mexican region, including those that are natives of the highest mountains. Among which are comprised the whole of the Cactus family as far as was possible to be obtained—the far famed Cheirostemon platanoides or hand flower tree—three *ever-green* species of the oak, with beautiful and peculiar foliage—the Fuschsia arborescens, with large laurel like leaves—the Cestrum nocturnum or night smelling jasmine—Bignonia jasminifolia, stated by Mr. Poinsett to be one of the most beautiful climbing plants in the world—Passiflora ligularis or large Mexican granadilla with eatable fruit—Richardsonia laurifolia—Zephyranthes carinata, rosea, and candida, Mammea americana or Great Mammee apple—Laurus persea or Alligator pear—Montanoa arborescens—Hibiscus rosamontana—several magnificent species of Amaryllis, Crinum, Panczatuim, and Bignonia—the very singular scarlet leaved Euphorbia—several species of Asclepias and Echites—the round fruited Calabash tree, or Crescentia—several orignal species of the Dahlia—black flowering Gonolobus—the Montezuma rose, and the red and white Mexican rose trees—several beautiful species of Acacia and Mimosa—the Mexican Schinus, which adorn the road sides, and whose branches are pendant like those of the weeping willow, and are loaded with scarlet fruit—Stevia alba and various other objects calculated to elicit the greatest interest among botanists and horticulturists.

(From the New York Far. and Hort. Rep.)

New Plants from the Western Coast of North America —*By Michael Floy.*

Sir,—In a late number of the Botanical Register, I observe that among the many new and rare plants, collected by Mr. Douglass, the London Horticultural Missionary to the Columbia river, a new genus which has been called *Hosackia* in honour of Doctor David Hosack, of this city, the President and Patron of the New-York Horticultural Society.

As this mark of respect paid to the Dr. by Mr. Douglass is gratifying to our feelings as Americans, and highly complimentary to him, I extract the following from the Botanical Register, No. 6, of volume 2d, London, printed August 1st, 1829. Page 1257.

"Hosackia *bicolar*, two coloured Hosackia; Diadelphia Decandria; nat. ord. *Leguminos* Loteæ, "a pretty perennial plant found by Mr. Douglass, in overflowed meadows, between Fort Vancouver and the grand rapids of the Columbia. It is quite hardy, and easily increased by seeds."

"For the characters of the genus, and for the following valuable remarks, we are indebted to our friend, Mr. George Bentham, who has studied that portion of Leguminosæ, to which Hosackia belongs, with much care:

"This plant has much of the habit, as well as the inflorescence and fruit, of a Lotus, to which genus Dr. Hooker has referred it in the *Botanical Magazine;* but, independently of the characters which may be drawn from the position of the *alæ*, and the *capitate* stigma, the pinnate, not ternate, leaves, and the absence of the large foliaceous stipulæ of Lotus; characters which appear to be of importance among most of the Leguminosæ—perhaps alone suffice for the adoption of the genus Hosackia, proposed by Mr. Douglass.

"To this genus, should be referred the *Lotus sericeus* of Pursh, which Nuttall, on account of the position of the *Alæ*, transferred to Trigonella, under the name of Trigonella Americana, but which differs from the other species of that genus by its fruit being cylindrical, and not reticulate, the size of the carina, and its general habit. "The leaves in this species are generally trifoliolate; but then the two lower leaflets are seldom opposite, as in the truly trifoliate genera, and in the leaves of the more robust specimens, a fourth and even a fifth leaflet may often be observed; the stipules are so small as scarcely to be visible.

"Specimens of this species were also brought by Mr. Douglass from the North-west coast of America, as well as of two other species, which may be referred to the same genus. The species described, are.

1 *Hosackia becolar.*
2 *Pubescens.*
3 *Purshiana.* { Lotus Sericeus, Pursh, flor. 2 p. 489. Trigonella Americana, Nutt. gen. 2. p. 120.
4 *Parviflora.*

Also, another new genus, from the same country, and introduced by the same collector, (Mr. D. Douglass,) appears in the June number of the Botanical Register, No. 4, interesting to the state of New York in particular. The Clintonia, in honour of the late Gov. Clinton. Clintonia *elegans*, nat. order, *Lobeliaceæ*. "A procumbent hardy annual, which," Mr. Douglass informs us, is very common in low, grassy, overflowed grounds, on the plains of the Columbia, near Wallawallah river, and near the head springs of the Multnomak; flowering from June till August. "With us, it forms one of the most beautiful annuals with which we are acquainted. Notwithstanding the want of spreading foliage to give its flowers effect, the latter are of so brilliant a colour, that the plants, when grown in broad patches, resemble a carpet of silver and blue.

"Clintonia, Governor De Witt Clinton, an amiable excellent man, and a distinguished patron of American investigation, [*Lon. Gar. Mag.*

SILK WORMS.

M. Turck of Plombiers, (in France,) having proposed the employment of the leaves of the *Scorionera*, to rear silk worms, Madile, *Coge*, of Epinal, was requested to try the experiment; the success was complete. The silk produced, did not yield in excellence to that produced by the worms fed upon Mulberry leaves, and surpassed the specimens obtained from worms fed upon Lettuce leaves. This new food does not in the least degree derange the vital functions and habits of these insects. The quantity of silk obtained was at least double to that procured by employing the lettuce leaves; and the facility with which the plants of the Scorionera can be raised, renders it desirable that further experiments should be made in this country on this interesting subject. We learn with pleasure that Mr. E. C. Cyuet, member of the Linnæan Societies of Paris and New York, has written to his friends, in France, to obtain an ample supply of the seeds of that valuable plant, which, naturalized here, would much accelerate the time at which the importation of silk, exceeding now in value the whole exportation of our bread stuffs, would be much reduced.

RURAL ECONOMY.

(From the Amer. Turf Reg. and Sport. Mag. No. 5.)

VETERINARY.

[We have been particularly requested by a correspondent and subscriber from East Florida, to devote our attention to what he calls the *blind staggers;* a disease which he represents as very fatal in that district of country. It will always give us pleasure to be able to answer such calls; and, as an evidence of this disposition, we publish the following account of the symptoms and cure of staggers, as given by Feron. ut we must remark, that when such demands are ade, it would be proper, that the person asking for e information, should give us a detailed account of e *symptoms* which have manifested themselves in e progress of the disease to which he alludes; as is will enable us to refer to our own, or to the perience of others, for the best curative means hich may have been employed in analogous cases.]

Staggers, or Inflammation of the Brain.

This disease is divided into two classes; viz. the sepy and mad staggers. The first is, when the anial becomes heavy, inactive, and shews an inclinatn to sleep, with his head resting in the manger, aompanied with a slow fever.

he mad staggers seize the horse nearly in the sae manner; but the animal soon becomes furious, fall down, deprived of all voluntary motion, his eyes fixd and insensible to light, his breathing quick and labrious, with great motion of the flanks; he often riso, and after plunging violently against any thing tha appears before him, falls down in the same insensibl state. The pulse is very quick and full, with a foa at the mouth, which gradually abates as he recors.

he Cause.—The sleepy staggers is nothing more tha a stagnation of blood in the vessels of the brain; b the mad staggers is a complete inflammation of t dura and pia mater or immediate covering of the bin, arising from plethora, or rupture of a blood ves, in consequence of some external injury received the head.

The diagnostic of this disease will be in proportion t the violence of the symptoms, the degree in which e powers of sense and motion are affected. The sease is generally more fatal to old than young brses.

The cure must begin, by large bleeding, to the quantity of four or five quarts at a time, and repeating the operation if it is found requisite; or according to the continuance of the symptoms, and the strength of the animal. The next thing to be done is, to give a considerable dose of purging physic; as the horse is extremely costive in this disease, we may give the following ball without any danger; viz. aloes, ten drachms; calomel, one drachm; mixed up with treacle. It will be necessary to inject large clysters of warm water and soap, or marshmallows and linseeds, and half a pint of oil; or warm water, with three ounces of common salt. Should the disease continue, we must apply a strong blister in front and behind the ears, and likewise two setons over the first vertebra of the neck. If the animal refuse mashes, and good water gruel, he must be fed with the horn, every two or three hours, with the same. But should the disease continue, and its violence resist this treatment, we may tie up or open the two carotid arteries, which operations I have performed myself with success, after every other means have failed.

When the symptoms are abated, we must pay the greatest attention to his appetite, and the food, which must be of warm mashes of bran and a little oatmeal, and not given too plentifully at a time; good grooming and gentle exercise will greatly contribute to the recovery of the animal.

Independent of an inflammation of the brain, horses are subject to another kind of staggers, which arises from a considerable distention of the stomach by food, inasmuch as to have lost all power of contracting, in consequence of an accumulation of indigestible food taken into the stomach; the coats of this viscus, in such a case, becoming so stretched, as to be easily torn; and when they give way to the distention, a sudden death is the consequence.

This sort of staggers generally attack horses of debilitated constitutions, old, and exposed to hard work, and afterwards feeding too voraciously, and not allowing them a sufficient quantity of water to moisten their food and render it digestible.

Symptoms.—The delirium, or pain produced in this disease, is proportionate to the distention of the stomach, and always attended with a convulsive twitching of the muscles of the chest, and tottering of the fore legs, which frequently give way suddenly, as if the horse was incapable of standing on them.

In this kind of staggers, there is always a yellowness of the eyes and mouth, occasioned by the pressure of the stomach upon the gall ducts, by which the bile is carried into the circulation; but it is worthy of remark, that, in this case, the animal is not so furious as in staggers produced by an inflammation of the brain; but they are quite insensible; and, indeed if a horse affected with this disease is set at liberty, he is always attempting to go forward, and will fall in any pit or other precipice, rather than endeavour to avoid it.

The treatment of the staggers, produced by distention of the stomach, is nearly the same as or an inflammation of the brain, (except the bleeding, which must be more moderate,) particularly in debilitated subjects. Nevertheless, as the distention of the stomach causes an accumulation of blood in the vessels of the brain, gentle blood-letting will be necessary; and this evacuation is attended with better effect when taken from the temporal artery. Oily clysters are also indispensably necessary; or those composed with water and soap, or water and salt. At the same time we must give some powerful stimulus, in order to give the stomach sufficient energy to get rid of its contents; the best of which is about half an ounce of vitriolic æther, diluted in a pint of salt water; the same dose may be repeated every six hours, and oftener if necessity requires it. Half a pint of gin, in a quart of salt water, will perhaps answer the same purpose. At the same time we may give a dose of physic, composed of six drachms of aloes, and a drachm of calomel, which may be repeated as often as it is found necessary.

LADIES' DEPARTMENT.

BEDS.

Many, perhaps, who rank "the downy couch" high upon their list of indispensable comforts, will be surprised to learn that writers on the means of preserving health have, almost unanimously, included it among the means calculated to rob the system of its due degree of vigour.

In youth especially, feather beds, like every other species of luxury, by causing a premature development of the system, without strength proportionate to the rapidity of its growth, often lay the foundation for many of those diseases by which multitudes are consigned to an early grave.

Even in persons of maturer years, by the undue degree of heat they accumulate around the body during sleep, and the profuse perspiration thence induced, in the milder seasons of the year, their tendency is to enervate the constitution, and lay it open to serious impressions from trifling degrees of cold.

A mattress composed of some soft and elastic material, as hair or moss, ought, therefore, to be invariably preferred. The latter, with a proper amount of covering, will be found sufficiently warm for health and comfort, during even the severest nights of winter.

On a former occasion, we attempted to show the susceptibility of infants to the influence of cold; hence, it might be supposed that for them, a feather bed would be the most appropriate; and this opinion has been attempted to be supported by a reference to the instinct of animals, among which "all that bring forth a feeble offspring prepare a soft bed for their reception—brood them with their wings, or clasp them to their bosom for the sake of warmth." It is certainly true, that during infancy a greater degree of warmth is at all times demanded than is necessary, or would be proper, in after life; but, as an infant should never be allowed to sleep alone, it can always be preserved of a sufficient temperature, without having recourse to the doubtful expedient of subjecting it to immersion in a bed of feathers.

Doctor Darwin has advised that young children "should not lie on *very hard* beds, as it may occasion them to rest on too few parts at a time, which hardens these parts by pressure, and prevents their proportionate growth." A bed, such as is here described, would most undoubtedly be improper at any period of life. There is a very material difference, however, between a soft and elastic mattress, and a bed so hard as to occasion uneasiness to the parts with which it is in contact. From sleeping on the former, even the most delicate need not be deterred, by any apprehensions of the injurious consequences to which the doctor alludes.

If ever feather beds be admissible, it is in the case of the aged, who are nearly as susceptible to the influence of cold as infants; to such, therefore, a warm bed is often a matter of indispensable comfort.

Feather pillows are not less injurious than feather beds. By preserving the head of an immoderate warmth, they are apt to induce catarrhs, and, in the young, may become the remote or exciting cause of inflammation in the ear, eruptions, pain of the head, or even more serious diseases. For the same reason, all coverings for the head at night, excepting in the instance of females who are accustomed to wear a cap during the day, are productive of bad effects. Children, therefore, of both sexes, should be accustomed from an early age to sleep with the head bare—the covering with which nature has, in general, so plentifully supplied this portion of the body, being amply sufficient to protect it from cold.

After what has been said above, upon the injurious tendency of subjecting the body to an undue degree of heat, during the period of repose, cautions against an excess of bed clothes would appear unnecessary. It is all-important that the body be covered with a sufficiency of clothing to preserve it comfortably warm; and this may be effected during health, and in individuals accustomed to exercise, by fewer blankets, coverlets, and *comfortables* than many are accustomed to pile upon the bed.

So injurious is an excess of heat, during repose, esteemed by Dr. Beddoes, that he has advised, and with great propriety, that young persons, especially when they present symptoms of languor and debility, or complain of unrefreshing sleep, should be examined when in bed, "and if found too warm, awakened without compunction."—The bed clothes should then be thrown off, "or if the dry heat of the surface be considerable," he adds, "it will be best to walk up and down the room, in a dress so contrived as to guard the extremities from chill, while it permits the residue of the body to be freely ventilated."—Cool rooms, mattresses, and light bed clothes, will in all cases prevent the necessity of having recourse to the expedient here directed.

A proper night-dress is an object of no little importance.—A loose flannel gown for winter, and one of muslin for summer, will be found the most proper, more especially for children. No part of the clothing worn during the day ought, in fact, to be retained at night.* Whatever dress is adopted, it should be free from every species of ligature, particularly at those parts which encompass the neck or the extremities. This is an all-important caution, from a neglect of which serious injury has repeatedly resulted.

Closely shrouding a bed with curtains, is one of those numerous instances in which the requisitions of fashion are found to be opposed to health. By preventing a free circulation of the air, they oblige the individual who reposes within them, to breathe an atmosphere vitiated by repeated respiration. They become likewise receptacles for fine particles of dust, which are liable to be inhaled during sleep, whenever disturbed by the motions of the curtains or of the bedstead; this alone, according to Willich, is a cause to which many young persons may refer the first development of a consumptive attack.

Equally pernicious is the practice of sleeping with the face enveloped in the bed-clothes, as well as that most ridiculous custom, so prevalent in this country, of suspending a curtain over the front of an infant's cradle.

Their own feelings might be supposed sufficient to induce all to assume in bed that position, in which every portion of the body will be left the freest from constraint; yet in the case of children, some cautions may be necessary, in order to prevent an awkward position from being indulged in, calculated to produce a prejudicial effect upon the symmetrical growth and perfect development of the system. Hence it is prudent, when young persons lie upon their backs, to reduce the size of the pillows, in order to guard against a contortion of the spine; while lying on the side requires pillows sufficiently large to fill up the space between the head and point of the shoulder. A constrained position, if it had no other bad effect, is a certain preventive to sound and refreshing sleep.

Beds should never be placed upon the floor: it is well known, that in all apartments occupied by living beings, the inferior portions of the atmosphere are always the most impure. The most wholesome situation for the bed is in the middle of the room, and raised some feet from the floor. From the vitiated state of the atmosphere immediately above the latter, and the great importance of a free ventilation, the practice of placing the children's bed beneath another bedstead during the day, cannot be too severely reprobated. [*Journal of Health.*

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* Those, in particular, who are accustomed to wear flannel will find it advantageous to dispense with it whilst in bed—or to exchange it for an undress of cotton.

"I AM ENGAGED."

We copy the following article from Levasseur's Journal of Lafayette in America.

"The American ladies are not more remarkable for their severe conjugal fidelity than the girls are for their constancy to their *engagements.* At parties I have often had young ladies pointed out to me of eighteen or nineteen who had been *engaged*, and of whose future husbands, one was in Europe, pursuing his studies, another in China, attending to his commercial business, and a third dangerously employed in the whale fishery, in the most distant seas. Young girls thus engaged, hold the middle place in society between their still disengaged companions and the married ladies. They have already lost some of the thoughtless gaiety of the former, and assumed a slight tinge of the other. The numerous aspirants, designated here by the name of *beaux*, which at first surrounded them, and were received until a choice was made, still bestow upon them delicate attentions, but by no means so particular as formerly; and should one of them, either from ignorance or obstinate hopes, persist in offering his heart and hand, the answer "I am engaged," given with a sweet frankness and an indulgent smile, soon destroys all his illusions, without wounding his pride. Engagements of this sort preceding marriage are very common, not only in New York, but throughout the United States; and it is exceedingly rare that they are not fulfilled with religious fidelity. Public opinion is very severe on this point, and does not spare either of the two parties which may dispose of themselves without the consent of the other."

MISCELLANEOUS.

HYDROPHOBIA.

The Boston Commercial Gazette in remarking on a horrible case of Hydrophobia copied into that paper from the Belfast Northern Whig, has the following paragraphs, in which a remedy for the disease, certainly worthy of being brought to the test of experiment, is suggested.

A writer in the London Courier of the 30th September, calls the attention of the public to what he considers the most suitable plan of treatment when this disease has actually taken place. "We observe says the writer, that in hydrophobia there is a constant thirst, and great dryness of the skin—the pulse is quick and hard—the whole system appears to have undergone a violent change, and nothing distresses the patient so much as the pain and difficulty in deglutition. Under these circumstances, were the patient to be placed in a warm or vapour bath, and kept there till perspiration takes place; were the most suitable diaphoretics had recourse to, and the skin kept in a state of perspiration for some time—we, in reasoning from analogy, might be able to subdue the thirst and febrile action, and, perhaps, by the exhalant arteries throw off the disease from the fluids of the body." In corroboration of the views here stated, the writer refers the reader to the following remarkable case, as reported in the Dublin Morning Post of the 25th October.

"In my early days (says the narrator) there lived in the neighbourhood where I was brought up, a man who had the misfortune to be bitten by a dog that was considered to be in a rabid state. Some time afterwards the man grew unwell, and almost immediately manifested all the horrible symptoms of hydrophobia, which increased to such an alarming degree, that his friends had come to the resolution of adopting the dreadful alternative of putting an end to his existence by suffocation; and for this purpose four men spread a bed on the floor, and forced the unfortunate man down upon it, covering him with another bed, upon which they stretched themselves to prevent him from getting breath, while his wife and a few relations were in another apartment awaiting the awful event. The struggles and groans of the unfortunate victim were for some time adequate to make human nature shudder, during which time his wife's feelings may be imagined, but cannot be described; but after a little time, the noise in the fatal apartment ceased, when she rushed in with frantic despair, and, with almost supernatural strength, forced the men from off her husband's body, declaring that 'let the consequence be what it would, she would let the Almighty take the manner of her husband's death in his own hand.' When she removed the bed that lay upon him, he lay almost lifeless; and so ardent had been his struggle, that the sweat had oozed from every pore in his skin, and in such a quantity that it formed a small dam in the floor. After he was a short time exposed to the air, he revived and sat up telling the by-standers that his madness had left him; and it was so in reality, for he lived long and happy with his wife, who had been so instrumental in saving his life, and had by him a large family after his recovery. He died at last a natural death."

FINANCES OF PENNSYLVANIA.

Summary statement of the receipts and payments at the Treasury for the year commencing 1st December, 1828, and ending 30th November, 1829.

RECEIPTS.

Lands and land office fees	$97,290	79
Auction commissions	19,000	00
Auction duties	140,518	75
Dividends on Bank stock	121,289	00
Dividends on bridge and turnpike stock	19,640	00
Tax on bank dividends	58,184	07
Tax on offices	9,245	33
Fees, secretary of state's office	1,779	23
Tavern licenses	50,031	67
Duties on dealers in foreign merchandise	62,607	92
State maps	691	36
Collateral inheritances	10,742	19½
Pamphlet laws	55	36
Militia and exempt fines	3,000	71
Tin pedlars' licenses	210	00
Escheats	74	24
Commissioners of the internal improvement fund	200,000	00
Loans	2,811,288	38
Old debts and miscellaneous	9,738	38
	3,610,338	02¼
Balance in the Treasury 1st December, 1828	189,815	46½
	$3,800,153	49

PAYMENTS.

Internal improvements	3,049,893	01
Expenses of government	218,393	85
Militia expenses	17,738	22
Pensions and gratuities	27,800	82
Education	16,702	48
Interest on loans	91,725	00
Internal improvement fund	168,787	18
Pennsylvania claimants	978	92
State Maps	542	27
Penitentiary at Philadelphia	6,000	00
Penitentiary near Pittsburg	5,466	25
Conveying convicts	411	27
Conveying fugitives	287	58
House of Refuge	2,500	00
Miscellaneous	17,550	16
	3,624,777	51
Balance in the treasury 1st Dec. 1829,	175,375	98
	$3,800,153	49

(For the American Farmer.)

NEW YEAR'S ODE TO RURAL LIFE.

Come, gentle Muse, let us the bustling throng,
And noise of cities leave, and hence along
The fields, and meadows, and the valleys stray,
To gather themes for lute and lyre to play.
And, while my oaken reed and sylvan lyre,
Smiling, thou shalt with rural notes inspire,
Let us the ploughman and the reaper stay,
Companions mete, to hear our New Year's lay.
To other songsters leave the noise and strife,
And jarring discords, of a city's life;
We'll sing the ploughman, as he turns the sod,
And for his substance thanks alone his God;
He whom the warring elements alone,
Save Him above, can shake upon his throne;
He whom the world, with all its powers of state,
Can neither humble low nor elevate;
And whose bright honors, through life's livelong day,
No human power can give, nor take away:—
His are the pleasing labours of the soil,
And his the honors—his the wine and oil.
How frail the honors of the regal brow,
In competition with the humble plough!
The Plough!—When thrones and sceptres shall have pass'd
To that dark world, to which they're hast'ning fast;—
Frown'd to oblivion by a world oppress'd,
By all unhonored, and by all unbless'd;—
When all things else of honor pass away,
And sink, unmourn'd, unpitied, to decay;
The Plough, with all its honors, shall remain,
Untouch'd by time and tyrants in their reign:—
Man's first utensil, and his last, I trow,
Shall be the Shepherd's crook, the ploughman's plough.
All human action hath one end in view,
Though various the means we may pursue;
And happiness that end. Though none may find
The glittering prize, as pictured in his mind;
In the calm walks of rural life 'tis found,
More perfect, and more precious to abound,
Than in all other of man's various trades,
Professions, callings, and distinguished grades.
The Ploughman, whistling as he turns the soil,
In thoughts of harvest quite forgets his toil;
For he alone can hold the saying true,
That he who sows shall reap the harvest too.
Behold, at morn, the reaper in the field,
And the rich harvest to the sickle yield;
See him at eve, the well stored barn survey,—
Forgetting quite the labours of the day.
His, are rewards which well-timed works command—
Which none may reap, save him who tills the land.
But not alone is this his rich reward,—
He has a greater, which we more regard.
From turmoil free, and discontent, and strife,
He lives a quiet and a happy life;
For though his acres number scarce three score,
They all his wants supply—he wants no more;
And though his cot is small, no palace dome
E'er crown'd a richer or a happier home;—
Like a lov'd casket, small and rude, I ween
There's a rich jewel to be found within.
Nor deem his comforts less, should his plain board,
No Arab spice nor Indian meats afford;
Or should his vaults afford no "generous wine;"—
No lounging guests appear with him to dine;—
He wants no spice, no wine, no lounging guest,
To give his viands or his home a zest;
For 'tis the industrious farmer's proudest boast,
Thus unadorn'd, his board's adorn'd the most.
His music floats upon the airs of morn,
In notes melodious, from each fragrant thorn;
In copious streams his crystal nectar flows,
And with hale health his manly visage glows.
Hail, happy man! most favour'd and most blest,
Of all of Adam's line, thou stand'st confest;
And though to thee returning seasons come,
Like welcome friends, to bless thy rural home;
Each morning finds thee happy, cheerful, gay,
And each to thee's a happy New Year's day.
S.

Pensions.—A statement from the Pension Office presents the number of 12,201 Revolutionary Pensioners, and 3794 invalid Pensioners. Of the former 401, and of the later, 41, have died during the year.

THE FARMER.

BALTIMORE, FRIDAY, JANUARY 1, 1830.

MARYLAND AGRICULTURAL SOCIETY.

Thursday, December 3d, 1829.

The Trustees of the Maryland Agricultural Society met agreeably to adjournment at the residence of Samuel W. Smith.

Present, Richard Caton, *President:* George Howard, Jacob Hollingsworth, James Carroll, Jr. Samuel W. Smith, James Swann, John B. Morris, Charles Carroll, Jr. *Trustees*, and James Cox, *Treasurer*.

The further consideration of the report, which was made to the board at their last meeting by a committee appointed for that purpose, was postponed to the next meeting of the trustees, to be held at the residence of James Swann, on Thursday 7th January next.

A communication was received from Sir John Sinclair, containing a Report on the subject of preparing the "Bitter Cassava," for human food; also, Hints on the dangerous tendency of what is called the "Free Trade System;" and, an acknowledgment of the honor conferred upon him by being elected an honorary member of the Maryland Agricultural Society. Adjourned.

☞ NEW GRAPES, &c.—In No. 35, vol. 11, we copied from a northern paper an extract of a letter from Jacob B. Garber, Esq. to Wm. Prince, Esq. mentioning a new grape which had been raised in the vicinity of Columbia, Pa. by a Mr. Funk, from the seed of raisins. This excited the attention of a much respected horticulturist in Massachusetts, who applied to us through a common friend to obtain for him some of the vines. In his answer to our application, Mr. Garber, who is amply qualified to judge, expresses strong doubts of the grape having been produced as stated from the seed of raisins, and says it resembles the Fox grape in growth as well as in the leaves. We make the following extract from his letter:

"I scarcely know whether to send the grape-cuttings or not, as I have not yet seen the fruit, but judging from the appearance of the plant, I believe it will prove to be a variety of the Fox grape. Wishing to examine the fruit, I called on Mr. Funk sometime in September last, but went too late as the grapes were all taken off some weeks before, he stated to me as before that he raised the plant from the seeds of raisins, that he protected the plants for several winters, but that they were always destroyed notwithstanding his care, down to the roots, that he at last got tired of protecting, and left them to take care of themselves, when this one grew so as to astonish him and was not afterwards affected by frost; this is the account that Mr. Funk gave to me concerning the grape, and on his authority I happened to mention, among other subjects, in writing to Mr. Prince what I had been told. I however shortly after, and long before the extract was published in the Farmer, wrote to Mr. Prince, stating my doubts as to the grape being raised from raisins, from its resembling the Fox grape in growth, as also the leaves, and Mr. Prince would have done me a greater favour had he sent you this extract also, or else not at all until we were more certain of its worth.

I have frequently myself received things in this way that were highly spoken of, but after the trouble and care bestowed in raising, and anxious expectation found them worthless, and therefore thought it preferable to give you all the information I have concerning it *first*, and *afterwards*, send the cuttings if you wish them."

In the same letter another "*new grape*," which has unfortunately been too successful in passing itself upon the public, is detected and exposed. In No. 37, vol. 10, we copied an article from the Lancaster, Pa. Journal, stating that "a gentleman by the name of Deininger, then of Lancaster county, had discovered on an island in the Susquehanna river, near the mouth of Conestoga, some bunches of what he considered as very fine grapes. Some of these bunches he brought to Lancaster, and after examination they were pronounced by all the gentlemen who had a knowledge of this kind of fruit, to be grapes of a very superior quality to any heretofore discovered in our country." Here follows a description of the new grape, concluding with the remark that, "it was pronounced by judges to be equal, if not superior to any of the foreign kinds introduced into our country, and being indigenous, has nothing to fear from our climate."

With respect to this grape Mr. Garber observes:

"While on this subject, I will also state, that the Deininger or Susquehanna vine, of which an extract was published in the Farmer, No. 37, vol. 10, is now well ascertained to be the Munier or Miller's Burgundy, and that it never did grow on an island in the river as was reported, but was purchased by Mr. ——— from a German, travelling about the country, and planted in his garden, and afterwards reported that he had obtained it on an island, and actually succeeded in selling many of the plants at from 50 cts. to $2 each. I myself paid $2 for a single plant for Mr. Prince, who requested me to send them at any price. Really deceptions of this kind are unpardonable."

We thank Mr. Garber for enabling us to expose this most pitiful imposture, as well as for the timely caution he gives as to the character of the first noticed grape. Impositions of this kind are truly contemptible, and every gentleman who has it in his power ought to devote himself to their exposure. It is not alone the expense of the spurious plants that is lost; the trouble, care, and anxious expectation for a number of years rewarded by a worthless plant and contemptible fruits, constitute the loss—a loss which can never be remunerated. And we have but too frequently to listen to complaints of this kind. Scarcely a day passes without our hearing of gentlemen having planted orchards of fruit trees, obtained at high prices, and after eight or ten years of care and cultivation, they prove to be of the most worthless kinds. If such doings are not exposed and suppressed, the delightful science of horticulture will be degraded to a trade, in which overreaching and peculation will form the most prominent characteristics.

☞ AMERICAN ALMANAC.—We have enriched our paper this week with an article from the pen of Washington, which, we doubt not, our agricultural friends will find interesting, not only on account of its authorship, but for the plain practical and useful hints it contains. We are indebted for this article to the *American Almanac*, a new and most useful publication, recently issued from the press in Boston and New York, and now for sale at the different bookstores in this city. We have rarely seen as much practically useful matter comprised in so small a compass. The work contains 308 pages, and is divided into five parts. The 1st part contains a calendar and natural phenomena for the year; the 2nd, information connected with the calendar; the 3d, Miscellaneous directions, hints and remarks; the 4th, Statistics, &c. of foreign countries; and the 5th, Statistics and intelligence respecting the United States. It is a good book for farmers, and we recommend it to their attention.

THE GRAPE.—There is a single Grape Vine on the Farm of Henry Skinner, Esq. of Perquimans county, (N. C.) which produced this season 24 bushels of grapes, from which three barrels of wine were made.

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LATEST FOREIGN NEWS.

Intelligence from Liverpool to the 24th November has been received at New York. There is no news of importance. Another "turn out" had occurred among the operative manufacturers at Manchester, which was suppressed by the police.

AFFAIRS OF THE EAST.—An Odessa article of Oct. 30, says:—"M. Buieniess, Counsellor of State, arrived here on the 28th from St. Petersburg. He carries to Adrianople the ratification of the treaty of peace. He will then go to Constantinople, where he will take the office of Charge d'Affaires. All persons belonging to the legation of the Sublime Porte, have received orders to set out immediately to return to their posts. Count Orloff, one of the Commissioners who assisted in the conclusion of the peace, is also going to Constantinople on an extraordinary mission.

LIVERPOOL MARKETS.

LIVERPOOL, Nov. 21—Cotton—The demand for cotton has continued very animated throughout the whole of the week, both from the trade and speculations, and a further advance of ¼d per lb. on American and Brazil, and 1-8d on most other descriptions, has been obtained on the quotations of our last circular in the sales by private contract. Yesterday there were offered by auction 1500 Sea Island and stained, 1050 of the former sold at 10¼ to 12½d for ordinary to fair Sea Island, 13 to 14¾d for good fair to good, 15d to 2s ¼d for fine and choice marks; 300 stained do 4¾d to 10¼d. They went off steadily, though in some instances at rather lower prices in the middling and lower descriptions. There were also sold 200 Bahamas at 5½d to 8½d per lb. The sales by private consist of 8030 Boweds at 5d to 6½d, chiefly at 6d to 6¼d for fair to good fair; 3170 Orleans at 5¾d to 7¼d (140 at 8d) chiefly at 6½ to 6¾d for fair to good fair; 3770 Alabama and Mobile at 5d to 6 5-8d; 210 Sea Island at 12d to 19d (10 at 24d;) 30 stained do at 7¼d to 13d; 3260 Pernambuco at 7d to 7 7-8d; 3800 Maranham at

6½d to 7d; 1589 Bahia at 6 1-8d to 6½d; 640 Egyptian at 6 1-8d to 8½d; 130 Demerara at 6½d to 7 3-8d; 40 Barbadoes at 5 7-8d; 1900 Carthagena at 4½d to 4 5-8d; 160 Surat at 3½d to 5d. Making a total, including those sold by auction, of 28,270 bags, of which 3500 American and 2500 Brazil have been taken on speculation. The arrivals are only 342 bags.

There has been a good demand for tobacco this week, both from the trade and for Ireland, and considerable sales have been made to the extent of about 400 to 500 hhds. at steady prices.—For rice the demand has been nearly suspended, no sales worth notice having occured. Our corn market has remained steady, and the arrivals of wheat and oats from Ireland having been small, some little advance in prices has been obtained for the few sales which have been effected. For American flour in bond, for export, there has been a good demand, 3000 to 4000 brls. having been sold at 23s to 24s per brl.

Liverpool, Nov. 24—Cotton Market—The cotton market, during the last week has not only reached the preceding in point of the number of bags sold and at former prices, but we have to announce that during this period 28,000 bags have been sold, and principally at an advance of ¼d to 3-8d per lb. on American and Brazil description; and 1-8 per lb. on Egyptian and East India.

Postscript.—The sales of cotton have continued brisk throughout yesterday (Monday, Nov. 23,) the number of bags sold amount to about 3000, and the prices of last week have been readily maintained.

More Troubles in Columbia.

Extract of a letter from Venezuela, dated Nov. 28. 1829, received at Philadelphia, via St. Thomas.

"Affairs seem to have undergone a change in Venezuela, arising as it appears, from an *official* proposal made by General Urdaneta, the Secretary of War to Gen. Paez, to forward the coronation of Bolivar. The public voice is raised against the act in Venezuela.—"Death to the tyrant, death to the crown—long live the constitution," is the common cry through the streets. It seems that this portion of the country will form a separate, independent and republican government. The persons confined in the dungeons of Puerto Cabello, in consequence of the Bogota conspiracy have been set at liberty by the garrison, and the many persons who were banished from the country for political opinions, have been recalled by Gen. Paez. The odious and inquisitorial police has been abolished, and the liberty of the press has been restored by a public decree of Gen. Paez. You may, perhaps, recollect to have heard this distinguished officer and true patriot remark often, that he would follow Bolivar as long as he had no idea of erecting a monarchy, but that there should be no *crowns* in Colombia; the time it appears, has arrived when he will verify his assertions."—*N. Y. Mer. Adv.*

Prices Current in New York, December 26.

Bees-wax, yellow .23 a —— *Cotton*, New Orleans .10 a .12½; Upland, .8½ a .10½; Alabama, .8½ a 11. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a 10; clean 10.25; *Flour*, N. York, bbl. 5 a ——. —Canal 5.37½ a 5.50; Balt. Howard st. —— a 5.50; Richmond city mills, 5.50 a ——; country, 5. a 5.12½; Alexand'a, 5.12½ a 5.25; Fredericksburg 4.87½ a——; Petersburg, 4.87½ a 5.00 Rye Flour, 3.31½ a 3.37½; Indian Meal, per bbl. 2.75 a ——; per hhd 13. —a 13.25. *Grain*, Wheat, North river .1 a .—; Vir. 90 a 92; Rye, North, — a 70; Corn, Yel. Nor. .52 a 58; Barley, — a .68; Oats, South and North, .28 a .38; Peas, white, dry, 7 bu.——; Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8 a 8.50; prime 5.75 a 8.25; cargo 4.50 a ——; Butter, N. York, .12 a .15; shipping, .8 a 11; Lard, .5 a .6; Pork, mess 11.— a 12½; prime 9.— a 9.50; cargo—— a ——; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* 2.50 a 3. *Tobacco*, Virginia .4½ a .6 a 7. Kentucky, .4 a .6. a 7.

Prices Current in Boston, December 25.

Apples, best, bbl. 1.75 a 2.25. *Beans*, white, bushel 1.00 a 1.25. *Beef*, mess, bbl. 9.25 a—— ; cargo No. 1, 7.75 a ——; No. 2, 6.75 a —— *Butter*, inspected, No. 1, new, lb. .12 a .14. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.87 a 6.12; Genesee, 5.75 a ——; Rye, best, 3.62 a 3.87. *Grain*, Corn, bu. .62 a 63; Rye, .75 a .78; Barley .67; Oats .40 a .45. *Hogs'-Lard*, 1st sort, new, lb. .8 a 8.50. *Pork*, clear, bbl. 15 a 16; Navy, mess, 12.00 a 12.50; Cargo, No. 1. 12.00 a 12.50. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool*, Merino, full blood, washed, .38 a 40; do. do. unwashed, .20 a .25; do. three-fourths, washed, .30 a .33, do. half blood, .28 a .30; do. quarter, washed, .25 a .26; Native, washed .25 a .26; Pulled, Lambs', 1st sort, .35 a 36; do. 2d sort, .26 a .27; do. Spinning, 1st sort, 30 a .32.

FOR SALE,—*very low*,

An uncommonly large and valuable Young Jack, imported from Malta, quick and sure in his performance. *Inquire of the Editor of the American Farmer.*

FOR SALE.

The very superior and high bred horse AMERICAN or VIRGINIA ECLIPSE. This horse is out of the famous and well known Virginia race mare Melvina; which was and is so noted for her twelve, sixteen and twenty mile races, in which she was rarely if ever beaten. His sire is the imported horse Eagle. Only one of Eclipse's colts has appeared upon the turf, to wit, Capt. Geo. H. Terrett's horse Paragon, and he stands unrivalled in point of size and performance. Some of those gentlemen to the North who are purchasing horses to the South to breed from, would find it to their interest to view this horse and some of his colts. He will be sold low if immediate application is made.

[Mr. Townes, of Boydtown, owns a colt of his, a year old, that is fifteen hands high.]

Inquire of G. Chichester, near Fairfax Court House, Virginia.

FOR SALE.

SAM PATCH, foaled July 14, 1826, by Rob Roy, his dam by Telegraph, his grandam by Oscar, his great grandam Gen. Ridgely's celebrated running mare Primrose, she was by Grey Medley, her dam by Apollo, her grandam by the imported horse Granby, her g. grandam by Doctor Hamilton's Figure, her g. g. grandam by Othello—Othello out of Selima by the Godolphin Arabian.—[General Ridgely said Primrose was the best nag he ever owned.] *Inquire of the Editor.*

JONATHAN S. EASTMAN,

Has now on hand and is constantly supplied (at his Agricultural, Horticultural, and Seed Establishment, No. 36, west Pratt street, Baltimore,) with WHEAT FANS of the most approved kinds, made of the best materials and by good workmen; also, Cylindrical Straw Cutters, of which he is patentee, they are adapted to every kind of long forage, and surpassed by no other machine for the same purpose in any country. Likewise, a full assortment of Gideon Davis' highly improved Patent Ploughs,—the advertiser has recently made some improvement on the Shares of this Plough, which he trusts will be found an important advantage.

Also, Clezy's improved Scotch Plough, and improved Bar Share and Coulter Ploughs, of large size, Cultivators, Patent Corn Shellers, Dutch Cutting Boxes, Brown's Vertical Wool Spinner, Cast Steel Axes, superior Oil Stones, &c. &c.

Likewise, a general assortment of the Messrs. Landreths' Garden Seeds, warranted fresh and good, and at the same prices they are sold for at their store in Philadelphia. Orders will be received for Green House Plants and Bulbous Roots, from the Messrs. Landreth's splendid collection delivered here in good order, at the Philadelphia prices.

Also, Fruit and Ornamental Trees. On hand a good supply of Orchard Grass and Clover Seeds, both warranted of good quality.

ALMANAC.

1830. January.		Sun. Rises.		Sun. Sets.		Length of days.		Moon sets.	
		H.	M.	H.	M.	H.	M.	H.	M.
Saturday,......	2	7	22	4	38	9	16	0	03
Sunday,........	3	7	22	4	38	9	16	1	12
Monday,.......	4	7	21	4	39	9	18	2	15
Tuesday,......	5	7	21	4	39	9	28	3	30
Wednesday,..	6	7	20	4	40	9	20	4	35
Thursday,.....	7	7	20	4	40	9	20	5	32
Friday,.........	8	7	19	4	41	9	22	6	27

Moon—Full Moon, 8th 11 h. 18 m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—Sight variations will be noticed in nearly all our quotations of staple articles. The supply of flour and grain just previous to the holidays, caused a partial glut; but that supply having now become reduced, the demand it is thought will be equal to it and prevent any further material reduction.

Tobacco.--Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12 00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week comprise 383 hogsheads Maryland, 14 hogsheads Ohio, and 61 hhds. Va.—Total 458 hhds.

Flour—best white wheat family, $6.00 a 6.50—super Howard st. 4.75 a —— city mills, 4.25 a —; Susquehanna, ——. Corn Meal, bbl. 2.25 a 2.37½—Grain, best red wheat, .80 a .86; best white do. .92 a .97; ordinary to good, .70 a. .78—Corn, old white, .32 a 33; yel. .32 a 33; new .29 a ——Rye, .45 a ——Oats, .28.—Beans, 90 a 1.10—Peas, .64 a ——Cloverseed, 4.50 a ——Timothy, 2.50——Orchard Grass, 2.00 ——Herd's, — a 1.50—Lucerne .37½ a .50 lb.—Barley, .50 a .55—Flaxseed, 1.10—Cotton, Vir. .9½ a .10½ Lou. .11 a .12—Alab. .9½ a .11—Tenn. .9½ a .10—N. Car. .8½ a .9½—Geo. .9 a .10—Whiskey, hhds. 1st p. .23½ a .—; in bbls. .25 a ——Wool, common, unwashed, lb. .15 a .16—washed, .18 a .20—crossed, .20 a .22--three-quarter, .28 a 30—full do. .30 a .35, accord'g to qual.—Hemp, Russia, ton, $220 a 225; Country, dew-rotted, 120 a 140—water-roted, 170 a 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.0; do. trimmed, 6.50—North Carolina, No. 1, — a 5.0—Herrings, Susquehanna No. 1, bbl. 3.75 a ——; Mackerel, No. 1, — a 6.25; No. 2, 5.75 a —— No. 3, 3.5 a 4.50 —Bacon, hams, Balt. cured, 9 a .9½—Feathers, .32 a.——Plaster Paris, cargo price per ton, 4.62½, ground, 1.25 bbl.—Prime Beef on the hoof, .3.50 a 5——Pork, 4.75 a 5.00—Pine Wood, by the vessel load, 2.25 to 2.50; by the single cord, 2.75—Oak Wood, 3.25 to 3.75 Hickory, 5. a 5.50.

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Washington's Agricultural Notes; Directions to the Managers of his Farm; Particular Directions for Cultivating a farm near Mount Vernon, for the years 1801, 1802, 1803, and so on—The Sugar Cane, description of it, manner of culture and mode of making sugar—Wine Grapes, Pineau France, Gray Burgundy, Bourguignon Noir, Bourguignon Blanc, Auvernat Rouge Clair—Importation of foreign Plants from South America—New Plants from Western Coast of North America—Silk Worms—Veterinary, The Staggers or Inflammation of the Brain—On Beds—"I am Engaged"—Hydrophobia—Finances of Pennsylvania—New Year's Ode to Rural Life—Editorial, Proceedings of Maryland Agricultural Society; New Grapes; American Almanack—Latest Foreign News and Prices—Prices in the Boston, New York and Baltimore Markets—Almanack for the week.

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AGRICULTURE.

(From the Encyclopædia Americana.)

Agriculture is the art of cultivating the earth in such a manner as to cause it to produce, in the greatest plenty and perfection, those vegetables which are useful to man, and to the animals which he has subjected to his dominion. This art is the basis of all other arts, and in all countries coeval with the first dawn of civilization. Without agriculture, mankind would be savages, thinly scattered through interminable forests, with no other habitations than caverns, hollow trees or huts, more rude and inconvenient than the most ordinary hovel or cattle-shed of the modern cultivator. It is the most universal as well as the most ancient of the arts, and requires the greatest number of operators. It employs seven-eighths of the population of almost every civilized community.—Agriculture is not only indispensable to national prosperity, but is eminently conducive to the welfare of those who are engaged in it. It gives health to the body, energy to the mind, is favorable to virtuous and temperate habits, and to knowledge and purity of moral character, which are the pillars of good government and the true support of national independence.—With regard to the history of agriculture, we must confine ourselves to slight sketches. The first mention of agriculture is found in the writings of Moses. From them we learn that Cain was a "tiller of the ground," that Abel sacrificed the "firstlings of his flock," and that Noah "began to be a husbandman, and planted a vineyard." The Chinese, Japanese, Chaldeans, Egyptians and Phœnicians appear to have held husbandry in high estimation. The Egyptians were so sensible of its blessings, that they ascribed its invention to superhuman agency, and even carried their gratitude to such an absurd excess as to worship the ox, for his services as a laborer. The Carthaginians carried the art of agriculture to a higher degree than other nations their contemporaries. Mago, one of their most famous generals, wrote no less than twenty-eight books on agricultural topics, which, according to Columella, were translated into Latin by an express decree of the Roman senate. Hesiod, a Greek writer, supposed to be contemporary with Homer, wrote a poem on agriculture, entitled *Weeks and Days*, which was so denominated because husbandry requires an exact observance of times and seasons. Other Greek writers wrote on rural economy, and Xenophon among the number, but their works have been lost in the lapse of ages. The implements of Grecian agriculture were very few and simple. Hesiod mentions a plough, consisting of three parts—the share-beam, the draught-pole and the plough-tail; but antiquarians are not agreed as to its exact form; also a cart with low wheels, and ten spans (seven feet six inches) in width; likewise the rake, sickle and ox-goad; but no description is given of the mode in which they were constructed. The operations of Grecian culture, according to Hesiod, were neither numerous nor complicated. The ground receives three ploughings—one in autumn, another in spring, and a third immediately before sowing the seed. Manures were applied, and Pliny ascribes their invention to the Grecian king Augeas. Theophrastus mentions six different species of manures, and adds, that a mixture of soils produces the same effect as manures. Clay, he observes, should be mixed with sand, and sand with clay. Seed was sown by hand, and covered with a rake. Grain was reaped with a sickle, bound in sheaves, threshed, then winnowed by wind, laid in chests, bins or granaries, and taken out as wanted by the family, to be pounded in mortars or quern mills into meal.—The ancient Romans venerated the plough, and, in the earliest and purest times of the republic, the greatest praise which could be given to an illustrious character was to say that he was an industrious and judicious husbandman. M. Cato, the censor, who was celebrated as a statesman, orator and general, having conquered nations and governed provinces, derived his highest and most durable honors from having written a voluminous work on agriculture. In the Georgics of Virgil, the majesty of verse and the harmony of numbers add dignity and grace to the most useful of all topics. The celebrated Columella flourished in the reign of the emperor Claudius, and wrote twelve books on husbandry, which constituted a complete treatise on rural affairs. Varo, Pliny and Palladius were likewise among the distinguished Romans who wrote on agricultural subjects.—With regard to the Roman implements of agriculture, we learn that they used a great many, but their particular forms and uses are very imperfectly described. From what we can ascertain respecting them, they appear more worthy of the notice of the curious antiquarian, than of the practical cultivator. The plough is represented by Cato as of two kinds—one for strong, the other for light soils. Varro mentions one with two mould-boards, with which, he says, "when they plough, after sowing the seed, they are said to ridge." Pliny mentions a plough with one mould-board, and others with a coulter, of which he says there were many kinds.—Fallowing was a practice rarely deviated from by the Romans. In most cases, a fallow and a year's crop succeeded each other. Manure was collected from nearly or quite as many sources as have been resorted to by the moderns. Pigeon's dung was esteemed of the greatest value, and, next to that, a mixture of night soil, scrapings of the streets and urine, which were applied to the roots of the vine and olive.—The Romans did not bind their corn into sheaves. When cut, it was sent directly to the area to be threshed, and was separated from the chaff by throwing it from one part of the floor to the other. Feeding down grain, when too luxuriant, was practised. Virgil says, "What commendation shall I give to *him*, who, lest his corn should lodge, pastures it, while young, as soon as the blade equals the furrow!" (*Geor.*, lib. i, l. 111.) Watering on a large scale was applied both to arable and grass lands. Virgil advises to "bring down the waters of a river upon the sown corn, and, when the field is parched and the plants drying, convey it from the brow of a hill in channels." (*Geor.*, lib. i, l. 106.)—The farm management most approved of by the scientific husbandmen of Rome was, in general, such as would meet the approbation of modern cultivators. The importance of thorough tillage is illustrated by the following apologue: A vine-dresser had two daughters and a vineyard; when his oldest daughter was married, he gave her a third of his vineyard for a portion, notwithstanding which he had the same quantity of fruit as formerly. When his youngest daughter was married, he gave her half of what remained; still the produce of his vineyard was undiminished. This result was the consequence of his bestowing as much labor on the third part left after his daughters had received their portions, as he had been accustomed to give to the whole vineyard.—The Romans, unlike many conquerors, instead of desolating, improved the countries which they subdued. They seldom or never burned or laid waste conquered countries, but labored to civilize the inhabitants, and introduce the arts necessary for promoting their comfort and happiness. To facilitate communications from one district or town to another, seems to have been a primary object with them, and their works of this kind are still discernible in numerous places. By employing their troops in this way, when not engaged in active service, their commanders seem to have had greatly the advantage over our modern generals. The Roman soldiers, instead of loitering in camps, or rioting in towns, enervating their strength, and corrupting their morals, were kept regularly at work, on objects highly beneficial to the interests of those whom they subjugated.—In the ages of anarchy and barbarism which succeeded the fall of the Roman empire, agriculture was almost wholly abandoned. Pasturage was preferred to tillage, because of the facility with which sheep, oxen, &c. can be driven away or concealed on the approach of an enemy.—The conquest of England by the Normans contributed to the improvement of agriculture in Great Britain. Owing to that event, many thousands of husbandmen, from the fertile and well-cultivated plains of Flanders and Normandy, settled in Great Britain, obtained farms, and employed the same methods in cultivating them, which they had been accustomed to use in their native countries. Some of the Norman barons were great improvers of their lands, and were celebrated in history for their skill in agriculture. The Norman clergy, and especially the monks, did still more in this way than the nobility. The monks of every monastery retained such of their lands as they could most conveniently take charge of, and these they cultivated with great care under their own inspection, and frequently with their own hands. The famous Thomas à Becket, after he was archbishop of Canterbury, used to go out into the field with the monks of the monastery where he happened to reside, and join with them in reaping their corn and making their hay. The implements of agriculture, at this period, were similar to those in most common use in modern times. The various operations of husbandry, such as manuring, ploughing, sowing, harrowing, reaping, threshing, winnowing, &c. are incidentally mentioned by the writers of those days, but it is impossible to collect from them a definite account of the manner in which those operations were performed.—The first English treatise on husbandry was published in the reign of Henry VIII. by Sir A. Fitzherbert, judge of the common pleas. It is entitled the *Book of Husbandry*, and contains directions for draining, clearing and enclosing a farm, for enriching the soil, and rendering it fit for tillage. Lime, marl and fallowing are strongly recommended. "The author of the Book of Husbandry," says Mr. Loudon, "writes from his own experience of more than forty years, and, if we except his biblical allusions, and some vestiges of the superstition of the Roman writers about the influence of the moon, there is very little of his work which should be omitted, and not a great deal that need be added, in so far as respects the culture of corn, in a manual of husbandry adapted to the present time."—Agriculture attained some eminence during the reign of Elizabeth. The principal writers of that period were Tusser, Googe and Sir Hugh Platt. Tusser's Five Hundred Points of Husbandry was published in 1562, and conveys much useful instruction in metre. The treatise of Barnaby Googe, entitled *Whole Art of Husbandry*, was printed in 1558. Sir Hugh Platt's work was entitled *Jewel Houses of Art and Nature*, and was printed in 1594. In the former work, says Loudon, are many valuable hints on the progress of husbandry in the early part of the reign of Elizabeth. Among other curious things, he asserts that the Spanish or Merino sheep was originally derived from England.—Several writers on agriculture appeared in England during the commonwealth, whose names, and notices of their works, may be seen in Loudon's Encyclopædia of Agriculture. From the restoration down to the middle of the eighteenth century, agriculture remained almost stationary. Immediately after that period, considerable improvement in the process of culture was introduced by Jethro Tull, a gentleman of Berkshire, who began to drill wheat and other crops about the year 1701, and whose Horse-hoeing Husbandry was published in 1731. Though this writer's theories were in some respects erroneous, yet even his errors were of service, by exciting inquiry, and calling the attention of husbandmen to important objects. His hostility to manures, and attempting, in all cases, to substitute additional tillage in their place, were prominent defects in his system.—After the time of Tull's publication, no great alteration in British agriculture took place, till Robert Bakewell and others effected some important improvements in the breed of cattle, sheep and swine. By skilful selection at first, and constant care afterwards to breed from the best animals, Bakewell at last obtained a variety of sheep, which, for early maturity and the property of returning a great quantity of mutton for the food which they consume, as well as for the small proportion which the weight of the offal bears to the four quarters, were without precedent. Culley, Cline, Lord Somerville, Sir J. S. Sebright, Darwin, Hunt, Hunter, Young, &c. &c. have all contributed to the improvement of domestic animals, and have left little to be desired in that branch of rural economy.—Among other works on agriculture, of distinguished merit, may be mentioned the Farmer's Letters, Tour in France, Annals of Agriculture, &c. &c. by the celebrated Arthur Young; Marshall's numerous and excellent works, commencing with Minutes of Agriculture, published in 1787, and ending with his Review of the Agricultural Reports in 1816; Practical Agriculture, by Dr. R. W. Dickson, &c. &c. The writings of Kaimes, Anderson and Sinclair exhibit a union of philosophical sagacity and patient experiment, which have produced results of great importance to the British nation and to the world. To these we shall only add the name of John Loudon, F. L. S. H. S., whose elaborate Encyclopædia of Gardening and Encyclopædia of Agriculture have probably never been surpassed by any similar works in any language.—The establishment of a national board of agriculture was of very great service to British husbandry. Hartlib, a century before, and Lord Kaimes, in his Gentleman Farmer, had pointed out the utility of such an institution, but it was left to Sir John Sinclair to carry their ideas into execution. To the indefatigable exertions of that worthy and eminent man the British public are indebted for an institution, whose services cannot be too highly appreciated. "It made farmers, residing in different parts of the kingdom, acquainted with one another, and caused a rapid dissemination of knowledge amongst the whole profession. The art of agriculture was brought into fashion, old practices were amended, new ones introduced, and a degree of exertion called forth heretofore unexampled among agriculturists in this island."—We shall now make a few remarks on the agriculture of different countries of Europe and of the United States.

French agriculture began to flourish early in the 17th century, under Henry IV, and a work on that subject was published by Olivier de Serres. In 1761, there were 13 agricultural societies in France, and 19 auxiliary societies. Those of Paris, Amiens and Bordeaux have distinguished themselves by their memoirs. Du Hamel and Buffon made the study of rural economy fashionable, and other writers contributed to the advancement of husbandry. M. de Trudaine introduced the Merino breed of sheep in 1776, and Count Lasteyrie has written a valuable work on sheep husbandry. The celebrated Arthur Young made an agricultural survey of France in 1787—89. Since that time, several French and English writers have given the statistics of different districts, and the mode of cultivation there in use, and the abbé Rosier and professor Thouin have published general views of the whole kingdom. Buonaparte established many new agricultural societies and professorships, botanical and economical gardens, for the exhibition of different modes of culture, and the dissemination of plants. He also greatly enlarged and enriched that extensive institution, the National Garden, whose professor of culture, the Chevalier Thouin, is one of the most scientific agriculturists in Europe.—The lands in France are not generally enclosed and subdivided by hedges or other fences. Some fences occur near towns, but, in general, the whole country is open, the boundaries of estates being marked by slight ditches or ridges, with occasional stones or heaps of earth, trees in rows or thinly scattered. Depredations from passengers on the highways are prevented by *gardes champêtres,* which are established throughout all France.—Since the time of Colbert, the French have paid attention to sheep, and there are considerable flocks of Merinoes owned by individuals, besides the national flocks. That of Rambouillet, established in 1786, is or lately was, managed by M. Tessier, an eminent writer on agriculture. Sheep are generally housed, or kept in folds and little yards or enclosures. Mr. Birkbeck considers the practice of housing or confining sheep as the cause of foot-rot, a disease very common among them in France. Where flocks remain out all night, the shepherd sleeps in a small thatched hut, or portable house, placed on wheels. He guides the flock by walking before them, and his dog guards them from wolves, which still abound in some parts of the country. In the south part of France, the ass and the mule are of frequent use in husbandry. A royal stud of Arabian horses has been kept up at Aurillac, in Limousin, for more than a century, and another has been more recently established near Nismes. Poultry is an important article in French husbandry. Mr. Birkbeck thinks that the consumption of poultry in towns may be equal to that of mutton. The breed of swine is in general bad; but fine hams are made in Bretagne from hogs reared on acorns, and fatted with Indian corn.—The French implements of agriculture are generally rude and unwieldy, and the operations of husbandry unskilfully performed. The vine is cultivated in France in fields and on terraced hills, in a way different from that which prevails elsewhere. It is planted in hills, like Indian corn, kept low, and managed like a plantation of raspberries. The white mulberry tree is very extensively cultivated for feeding the silk-worm. It is not placed in regular plantations, but in corners, in rows by the sides of the roads, &c. The trees are raised from the seeds in nurseries, and sold, generally, at five years' growth, when they have strong stems. They are planted, staked, and treated as pollards. The eggs of the silk-worm are hatched in rooms heated by means of stoves to 18° of Réaumur (72½ Fah.) One ounce of eggs requires one hundred weight of leaves, and will produce from 7 to 9 pounds of raw silk. The hatching commences about the end of April, and, with the feeding, is over in about a month. Second broods are procured in some places. The silk is wound off the cocoons, in little balls, by women and children. The olive, the fig, the almond and various other fruits are also extensively cultivated in France.

Agriculture in Germany. The earliest German writer on husbandry was Conradus Heresbachius, who lived and died in the 16th century. His work, *De Re Rustica,* was an avowed compilation from all the authors who had preceded him. No other books on agriculture, of any note, appeared previous to the 17th century. With regard to the present state of agriculture in Germany, we would remark, that the country is very extensive, and presents a great variety of soils, surface, climate and culture. Its agricultural produce is, for the most part, consumed within its limits; but excellent wines are exported from Hungary and the Rhine, together with flax, hams, geese, silk, &c. The culture of the mulberry and the rearing of the silk-worm are carried on as far north as Berlin. The theoretical agriculturists are well acquainted with all the improved implements of Great Britain, and some of them have been introduced, especially in Holstein, Hanover and Westphalia; but, generally, speaking the ploughs, wagons, &c. are unwieldy and inefficient. Fish are carefully bred and fattened in some places, especially in Prussia, and poultry is every where attended to, particularly in the neighborhood of Vienna. The culture of forests likewise receives particular attention in that country as well as in France. The common agriculture of Germany is every where improving. Government, as well as individuals, have formed institutions for the instruction of youth in its principles. The Imperial Society of Vienna, the Georgical Institution at Presburg, and that of Professor Thaer, in Prussia, may be numbered among recent institutions of this description.

Agriculture in Italy. The climate, soil and surface of Italy are so various as to have given rise to a greater diversity of culture than is to be found in the whole of Europe besides. Corn, grass, butcher's meat, cheese, butter, rice, silk, cotton, wine, oil and fruits of all kinds are found in perfection in this fertile country. Loudon asserts that only one-fifth of the surface of Italy is considered sterile, while only a fifth of the surface of France is considered fertile. The population of Italy is greater, in proportion to its surface, than that of either France or Great Britain. Among the writers on the rural economy of Italy are, Arthur Young, in 1788, Sigismondi, in 1801, and Chateauvieux, in 1812.—In Lombardy, the lands are generally farmed by *metayers* (from *metà,* half.) The landlord pays the taxes and repairs the buildings. The tenant provides cattle, implements and seeds, and the produce is divided. The irrigation of lands in Lombardy, is a remarkable feature of Italian husbandry. All canals taken from rivers are the property of the state, and may be carried through any man's land, provided they do not pass through a garden, or within a certain distance of a mansion, on paying the value of the ground occupied. Water is not only employed for grass lands (which, when fully watered, are mowed four and sometimes five times a year, and in some cases, as early as March,) but is conducted between the narrow ridges of corn-lands, in the hollows between drilled crops, among vines, or to flood lands, to the depth of a foot or more, which are sown with rice. Water is also used for depositing a surface of mud, in some places where it is charged with that material. The details of watering, for these and other purposes, are given in various works, and collected in those of Professor Re. In general, watered lands let at one third higher price than those not irrigated. The implements and operations of agriculture in Lombardy are both imperfect. The plough is a rude contrivance, with a handle 13 or 14 feet long. But the cattle are fed with extraordinary care. They are tied up in stalls, bled once or twice, cleaned and rubbed with oil, afterwards combed and brushed twice a day. Their food in summer is clover or other green herbage; in winter, a mixture of elm-leaves, clove-hay, and pulverized walnut-cake, over which boiling water is poured, and bran and salt added. In a short time, the cattle cast their hair, grow smooth, round and fat, and so improved as to double their value to the butcher.—The tomato or love-apple (*solanum lycopersicum,*) so extensively used in Italian cookery, forms an article of field-culture near Pompeii, and especially in Sicily, from whence it is sent to Naples, Rome and several towns on the Mediteranean sea.

(Agriculture of the United States of America to be inserted in our next.)

Cider.—The past season has been favorable to the making of this wholesome beverage in this county. One individual informs us, that he has made *two hundred and thirty barrels,* which he has disposed of at one dollar and one dollar and twenty five cents, per barrel. Some years since, it was sold in town, at *seven dollars* a barrel.—*Col. Ohio Jour.*

SUGAR.

We were led into an error in our notice, last week of the plantation of Mr. Preston, by a mistake of the gentlemen from whom we derived the information, supposing that one battery, as it is technically termed, or the juice, that a set of boilers contains, would make a hogshead, whereas it will make but half that quantity.

We are now enabled, in some degree, to redeem our promise to obtain additional information, respecting this very flattering experiment in the manufacture of sugar. On this plantation about 125 acres were cultivated in cane, of which 35 were reserved for seed. The rows were six feet apart with corn planted between them. The unusually severe frosts on the 13th and 14th of Oct. prevented the cane from maturing, and rendered it necessary to reject much, that would have made sugar, had it not been touched by the frost—besides the season throughout has been considered peculiarly unfavorable. Owing to these concurrent circumstances, the produce certainly does not exceed one half of what may be expected in ordinary seasons, with a different mode of cultivation, yet it will equal one hhd. (1000lbs.) to the acre, a quantity which we believe will richly reward the labor and industry of the agriculturist.

It is difficult to conceive why the emigrants, from Virginia and the Carolinas, should give the preference to the comparatively unproductive and insalubrious regions of Arkansas and Missouri, when they have before them the practical results of the enterprize of our citizens, who have chosen this beautiful country for their homes; but such is the fact, if the accounts can be credited of the unceasing tide of population, that is rolling westward.

It is to be regretted that people who visit this country, cannot divest themselves of their prejudices, as well as the poetic fancies of orange and citron groves in the "sunny south." These things are not to be had without being planted and reared.—Our magnificent forests, so beautiful to lovers of the picturesque, often cause those to turn away disheartened, who come prepared to find them interspersed by fountain and waterfall, or rather without previously having reflected that years of labor would be required to remove them out of the way of the agriculturist.

Our soil has been a stumbling block to many, an enigma which could not be solved, for it was unreasonable to suppose that land, differing from that on the Potomac, the Pedee, or the Cumberland, (according to the different districts to which the individuals had been accustomed) and in which sand, certainly predominates, could be fertile. The luxuriant and waving harvest, every where visible, have often been, in consequence, set down as purely accidental, as something unnatural and not to be depended upon; yet those best acquainted with the country, believe that the prevailing characteristic of our soil is better adapted than any other to the nature of our climate, and a perpetual succession, in mid-summer, of sunshine and showers.

[*Tallahassee pa.*

POTATOES.

The discovery of America gave to the civilized world, in the potato, an acquisition of more importance than the possession of all her mines of silver and gold. The ease and facility with which this vegetable is produced, the quantity which may be obtained on a comparatively small portion of land, and its valuable properties as an article of food, both for man and beast, are of so much importance, that the introduction of its culture may justly be considered as a new era in the annals of domestic economy. It is to the potato that Ireland owes her rapid increase in population, and that, it is, which enables her, on a territory less than half the size of Virginia, to support *seven millions* of people, and annually to produce a considerable surplus of provisions for exportation. Wherever the potato is used as a substitute for bread, at least one half the expense of that article of food is saved. To increase its use, and to make it as much as possible a substitute for other kinds of food, must, then, be an object worthy of more attention than it has, hitherto, received. We know of no means to do this, so certain, as that of improving the quality of potatoes, intended for the table, so that they shall be preferred to other food. Every person of observation is aware of the fact, that when he dines at a table where the potatoes are dry and farinaceous, so that a fork can hardly be put into them without causing them to fall in pieces, the bread lies neglected, and much less meat is eaten in proportion. But, where the potatoes are wet and heavy, they, in turn, are but sparingly eaten, while the bread and meat have to make up the deficiency. Good potatoes are universally liked, and, if every family was to be at all times supplied with them, we are satisfied, considering the various modes in which they may be prepared for the table, at a trifling expense, that they would furnish a much greater portion of the sustenance of our population than they now do, and that, thereby, a considerable reduction in the cost of living would be effected.

In cultivating potatoes for the table, although the productiveness of the kind used is worthy of consideration, yet it is of but secondary importance. If, for instance, one kind yields 15 or 20 per cent. less than another, and yet is so much better in quality, that twice the quantity is used, it is more profitable to raise them than the others, because, every extra bushel that is used, makes a saving of nearly its whole cost, in the value of other food for which it is substituted.—*Mass. Spy.*

CULTURE OF CORN.

Mr. Skinner, is requested to republish the communication of Dr. Muse, upon his mode of cultivating corn, referred to in his letter published in the Farmer of the 18th December, as being contained in one of the old numbers of the same work—this request is made because many of the present subscribers to that work are not in possession of the work so far back.

A Subscriber.

Extract from the Report of the Annual Cattle Show and Fair—held by the Maryland Agricultural Society for the Western Shore of Maryland, agreeably to appointment at Carroll's Point.

Dear Sir, *Cambridge, Oct.* 4. 1827.

Last winter, some gentlemen, entertaining the same sentiments with myself, of the propriety of cultivating less land with more attention, in preference to more land with less attention, determined on a sweepstake on 5 acres of corn, free to all the farmers of the county who would throw in $5 each, to be laid out in a silver plate for the victor. Unfortunately only six entered for the race; unfortunately, too, *my* corn was planted four weeks after *theirs*, and the drought of a month fell directly upon the first shooting, (as it is called,) or earing of mine, which I had planted in a manner novel *here*, (I once, some years ago, saw the mode described, or nearly so.) Upon my five acres I had twelve thousand stalks to the acre. My land was laid off in double drill, 18 inches apart, lands 44 feet apart, and so throughout, and the stalks in these lines about 12 inches apart—making a regular series of isosceles triangles. My ground was most perfectly pulverized by the plough, roller, harrow, and scarifier, before planting, When the corn was six or eight inches high, I *bar-ploughed* it very deep, and let the earth remain unreturned till I supposed the roots had descended under the furough; which was my object, that in case of drought the depth of the root might supply the moisture, which would be so extravagantly demanded by the excessive number of plants. These are the only peculiarities attending my experiment, and the ground was cultivated in extremes; my corn had seasonable weather and made a growth of twelve feet high, and as large stalks as could be desired; but unfortunately, at the very crisis of *fructification*, a drought commenced and continued about one month. The effects upon my thick growth you may imagine; my neighbours predicted that I would make none; and I think I would have made (but for this mishap,) fifty per cent. more. As it is, I ought to be satisfied, having swept the stake.

I enclose a statement of the product of the five acres; and also of ten acres, and will thank you to exhibit them to the committee on crops, at your cattle show; and whether I be or not, the successful candidate for the five or ten acre premium, or both, or neither, I feel gratified that under the most unfavorable circumstances of weather, I have convinced many obstinate farmers of their error—*quod erat desideratum*.

You will perceive that I have had all these matters verified on oath; and this full authentication ought to be for ever required by your board; nor does it imply suspicion, but it will make the overseers more particular, and the owners perhaps also: and it goes abroad upon a firmer basis than a loose letter of conjecture.

The board generally prefer to possess the mode of cultivation. You will please to use this as may best suit their views. Yours, respectfully,

J. S. Skinner, Esq. Joseph E. Muse.

Dorchester county, to wit—Oct. 8, 1827.

Joseph E. Muse deposeth that he accurately surveyed and measured the ground from which John Wheeler, his overseer, swears he obtained the corn below mentioned; and that the one measurement contains five acres precisely, and the other measurement ten acres to the best of his knowledge.

Taken and certified by me, a justice of the peace for the county aforesaid. James Houston.

John Wheeler deposeth that the corn which grew on the above named grounds this season, measured as follows, to wit. on the five acres, four hundred and forty-nine bushels and one half bushel and one half peck of shell corn, or ninety bushels per acre wanting a half peck—and on the ten acres, seven hundred and sixty bushels of shell corn, or seventy-six bushels per acre.

Taken and certified by me, a justice as afore mentioned. James Houston.

(From the New England Farmer.)

SUBDUING AND CROPPING PEAT LAND, &c.

Mr. Fessenden,—I noticed in your last week's paper an inquiry whether any of the cultivated grasses will grow on a peat, or vegetable soil.—Also, whether flowing in winter is prejudicial to such grasses?

From some experiments of my own I can answer that a peat bottom is an excellent bottom for herds grass.

The land should first be thoroughly drained; all the vegetable matter on the surface should then be pared and burnt, and the ashes spread evenly over the ground.

The seed should be sown in August if possible, and a good crop may be obtained the next season, I have seen more than three tons to the acre.—No grain should be sown with the grass seed in such lands, because the grass seed will not take root so well with grain, and because a crop of grass will be much the most valuable of the two.

If the meadow will bear the tread of cattle the labor of paring and burning will be much facilitated by the use of a paring plough. Such a plough is made much like other ploughs, but without a mould board; so that the furrow is not turned over, but completely cut apart, to be turned over by the hoe. The share of the plough should be sharp as an axe, and should branch out on each side of the chip, so as to be *capable* of cutting a slice 18 inches wide. But you should never aim to cut one more than half that width. You will then be pretty sure to cut clean, and will be able to subvert the sod with more ease.

If the share and coulter be sharp, one yoke of oxen will draw the plough through the very toughest grasses, cranberry vines, laurel or small bushes. Turn the sods in June, and pile them in heaps and burn them in August, or as soon as they are dry enough. The cost of seeding down an acre in this way need not exceed $20; and a sprinkling of peat ashes once in two years, say 8 or 10 bushels to the acre, will insure the continuance of a good crop,

The better you burn the better your crop. A bushel of good peat will make nearly half a bushel of ashes; and a cord of peat, *well cured*, is worth as much for fuel as a cord of oak wood.

As to flowing the land in winter, I can say I never knew good hay obtained afterwards for any long time.

Lands may be flowed in summer, spring, or fall; for two or three days at a time without detriment, but should be drained again as soon as the turbid waters have deposited their riches in the soil.—Even the foul meadow grass, that delights so much in moisture, is soon destroyed by continued flowing.

The frosts of winter seem essential to obtain good hay. They seem to effectuate something more than merely the shifting of the position of every particle of the soil, and thereby answering the purpose of a good ploughing and harrowing. Else why is the hay of our northern states so much superior to that of the southern?

Why do the cities of the South send annually to the North; to Maine; for a supply of hay?

Providence has given us, along with our long, cold winters, not only a much better kind of fodder, but a greater supply.

Wet lands will not produce sweet hay; by manuring highly you may obtain hay on wet grounds in the *shape* of herds grass and clover, but it is still *meadow hay*. But well drained meadows will produce as sweet hay with proper culture as any upland soil.

Yours, very respectfully,

Framingham, Dec. 25. W. B.

WHITE FLINT WHEAT, &c.

Mr. Skinner:

Dear Sir,—Several years since there was introduced "hereabouts" through the agency of the late John Haywood, Esq. a good deal of the much talked of "*white flint wheat,*" the same excellent gentleman also brought amongst us, Cobbet's valuable breed of hogs.

In regard to the wheat, most of our farmers and planters, are now in the habit of cultivating it in preference to *other sorts*, and if they have not discovered in it, any solidity of stalk, &c. still they perceive it to possess such valuable qualities as occasions them to esteem it highly. With us it is little if any affected with the rust, and the other pestiferous and destructive maladies which assail the wheat crops in most parts.

As to the hogs, crossed with our long bow backed, long legged breed, they are excellent, *it makes excellent pork*.

We were all much exhilarated by seeing quoted in your last quotations from the Liverpool prices current, that cotton had been sold at 12 cts. the pound, since then we have heard nothing further.

Most truly yours, &c.

New Year's day, 1830. Samuel.

HORTICULTURE.

Horticultural Garden, Brooklyn, New York, Dec. 26, 1829.

J. S. Skinner, Esq.

It is with pleasure that I send you this little communication for insertion in your valuable paper, considering that it might be useful in your part of the country.

Very respectfully,

Andrew Parmentier.

On the Asclepias Syriaca or Silky Swallow-Wort.

As the public attention is now much given to rearing silk worms, and the mulberry tree, some observations about the Silky Swallow-Wort (*Asclepias Syriaca*) I think would be acceptable. That plant is very common in this country, growing spontaneously along the hedges, fences, and roads, also in uncultivated grounds, its properties are worth much more attention than is paid to their cultivation, and one acre of poor soil, where they do better than in rich, and planted with the division of roots in April or in September, three or four inches under the ground, and the rows three feet apart on both sides. After three years the acre will be entirely covered, and the product will begin from the following year after the plantation; the ground wants no cultivation, this plant destroys the most part of the grass, and suffers nothing of the severity of the winter. Their pods contain a fine silky down, which could be mixed with great advantage with raw silk, flax, cotton, or wool; soft and light hats have been made of it, also stockings, flannels, cloths; excellent paper was made in France with the stalk of the plants, also common linen, and cables; these last better than some made with common hemp. This down makes very good pillows and beds, being very elastic and light; they make excellent oil with the seeds, and they have made with success in France, several experiments of extracting a brown sugar from their flowers.

(From "Prince's Treatise on the Vine.")

WINE GRAPES.

(Concluded from p. 332.)

MEUNIER, Duh.—Pr. Cat. No. 93.

Maurillon-Taconné.
Fromenté.
Resseau.
Meunier à saint noir.
Farineux noir.
Noirin.
Savagnien noir.

Miller grape,
Miller's Burgundy, } Of the English.

Vitis *subhirsuta; urà brevi, crassa; acino nigro rotundo.*

This variety has considerable affinity to the Catalan. Its leaves are trilobate, the two lateral ones being crenate; when young they are covered with white down, which easily distinguishes them, from which circumstance this vine has acquired the title here adopted. The cluster is short and thick, composed of round black berries, which are of good size and set rather close; the juice is pleasant, sparkling, and vinous. It is pretty common in French vineyards, and is cultivated on account of yielding good crops, and enduring for a long period. It succeeds best in sandy and light soils, but will flourish in almost any open and dry location. It is very hardy, of easy culture, ripens here early in September, and answers very well as an early table grape. Some English authors state that it takes its name from Miller who raised it from seed, but the French give a better reason for its title as mentioned above, and they are no doubt correct.

SAVAGNIEN BLANC, Duh.

Meunier blanc.
Meunier à saint blanc.
Malinié.
Uni-blanc.
White Miller grape.

Vitis *subhirsuta, urà crassà, acino albo, subovato.*

This variety differs from the preceding by the minor lobes of the leaves being more distinct, and its berries being white, rather larger, and a little oval. It must not be confused with the sauvignon, which is a very distinct fruit. This vine must be the variety of the Meunier described and figured by some authors with white berries, and also called by others White Miller grape. The fruit is sweet and agreeable in flavour, and makes passable wine. The vine will thrive in a meagre soil and is not readily injured by frost, but when the blossoms are destroyed by it they are not renewed that season. It is generally cultivated in French vineyards, and is not subject to a blight of its blossoms.

WHITE SAUVIGNON.—Pr. Cat. No. 106.

Sauvignon, Duh.
Saugignon blanc.
Sauvignen.
Servignen.
Sucrin.
Fiè.
Maurillon blanc, erroneously.

Vitis *serotino, acinis minoribus, acutis, flavo-albidis, dulcissimis.*

The leaves of this vine are scarcely lobed at all, but the indentures are pretty deep and very regular. The bunch is short, formed of rather small berries, which are white approaching to a yellow hue, more particularly on the sunny side, where at the period of maturity they are covered with small brick coloured points of remarkable appearance. This vine was formerly far more common in the French vineyards than it is at the present day. As the fruit possesses much perfume, it imparts to the wine a peculiar character; and not being greatly sought after, the culture of this vine has been consequently neglected. It ripens here early in September. I have a variety received from an American collection under the name of Red Sauvignon; but as I do not perceive such an one named in the French catalogues, I presume there must be some error in regard to it, and that it is synonymous with some variety known under a different title.

LE MOURVEGUE, Duh.

Mourvedé.
Mourvebré.

Vitis *serotina; acinis nigris, mediocribus, rotundis, dulcibus.*

This variety is very common in the north-west part of France, where it is known by different titles. It is not preferred by those who are particularly tenacious of the quality of the wine, and are regardless of the quantity of the produce; the berries are black, round, of pleasant taste and medium size.

MOURVEDE FARINOUS, Duh.

Vitis *serotina acinis subamplis, nigris, rotundis, &c.*—Gouvre.

This variety only differs from the preceding in its berries, which are larger, and have an appearance as if dusted over. These two varieties are among the choicest for making wine, and are not less agreeable for the table. As they are late in the period of vegetation, they are very hardy, and succeed readily in localities exposed to cold and humidity. Their juice is high coloured and sweet, and is in France much used in making a kind of domestic ratafia, which is much sought after, especially when it is prepared with care.

(From the New England Farmer.)

THE CANKER WORM.

Mr. Fessenden—The spring before last, I discovered a few carker worms on my apple, quince, cherry, plum, and elm trees, and determined to prevent their increase, by commencing to tar the trees early in the following spring; but late in the afternoon of the 17th of November, I discovered the miller, or male insect, flying about my garden and orchard, and immediately had several apple trees surrounded by belts of tar, to ascertain whether the *grubs* or females, would pass up, during the night. In the morring many were found caught in the tar, and I was fearful that these little, but destructive enemies, had stolen a march upon me, and rendered all attempts to check their career in the spring, unavailing. I mentioned this unexpected movement to several old farmers, who stated, that the insects which appeared in the autumn, either did not deposit any eggs, or that they were prevented from ever hatching by the severe frosts of winter; and that there was no injury to be apprehended, if the trees were thoroughly tarred the next spring, to prevent the ascent of the insects at that season. This was faithfully done; the work having been commenced the moment the ground began to thaw, and vast numbers were caught; all, in fact, which attempted to pass up, and I concluded my triumph was complete. Long after the trees had foliated not a canker worm was to be seen; when, suddenly, in May, they appeared in vast numbers; on many trees, every leaf was occupied by several, and a large portion of my orchard was nearly stripped of its foliage. These, beyond all doubt, were the offspring of autumnal parents; and it became evident that the trees must be defended against their movements, at that season, as well as the vernal, and I made arrangements for that purpose. On the 27th October, I commenced tarring, but no insects were discovered, until the evening of the 30th. As the tar became hard very soon, it was necessary to repeat the process often, and when the weather was warm, for several nights in succession, intermitting it only when the ground was frozen, or the nights so cold as to prevent the movement of the insects. This was continued until the 8th of December, after which none appeared.

The greatest number were caught on the night of the 12th of November. The day and evening were warm and misty, but during the night it cleared off cold, and the ground was frozen in the morning, an inch deep; still, to my astonishment, as soon as the sun rose, the insects, which had attempted to ascend, and were on the bark below the tar, or on the ground round the trunks of the trees, became active, and the females commenced depositing their eggs. Some were found on the end of my apiary, which was exposed to the sun; others on the fence, and on a chain that hung over it, near an apple tree, were a number, which had either laid their eggs, or were in the act of doing it. This I brought in, and hung up, and after the grubs had died, there were found, on the links, eleven deposits of eggs.

I counted 256 insects which were caught in the tar on the bark under it, and on the grourd, close to the trunk of an apple tree. Having collected several deposits of eggs from the trees and other situations, I examined them with a microscope, and found they contained from 212 to 228 each, averaging at least 215. Among the 256 insects above named, were 26 males, leaving 230 females, which would have produced 49,450 canker worms on one tree, if they had all ascended, and deposited their eggs.

On the evening of the 10th of November, I brought several males and females into my library, and placed them on paper, under glasses. During the forenoon of the 12th, one of them commenced laying the eggs, which were very symmetrically arranged in parallel lines, of unequal lengths, forming an irregular figure, whose area, like most of those I have examined, was about the tenth of a square inch, and contained 221 eggs. Perceiving that the rows of eggs were rapidly formed, I made use of a lens to witness the process, and discovered that six were deposited in two minutes. They are in form of the inverted frustum of a cone, or rather of a parabolic spindle, with semi-spherical bottoms and slightly convex tops; one fiftieth of an inch in diameter, and little less than two fiftieths in height. Being covered with a viscid substance, when first ejected, that suddenly hardens on exposure to the air, they are attached to each other, and to the surface on which they are placed, and so firmly, that I found several clusters of eggs, on the twigs of apple trees, in November, which must have been deposited last spring or the preceding autumn, as the larvæ had escaped.

The insects, like many others, take no food either in the winged or chrysalis state, but in the larvæ are voracious.

After the canker worms have grown to the full size, they descend, by a very delicate fibre, like that of the spider, and enter the earth, to the depth of three or four inches, where they change to the chrysalis state, and remain until the last of October, or the following spring, when the perfect insects appear and commence the process of propagating their species. The females are apterous, or wingless; but being furnished with six legs, they ascend the trees with considerable facility, and seek positions near the extremities of the small branches for placing their eggs. The males, most generally, are seen crawling up among the females, at the same time fluttering their wings to aid their movements, and occasionally taking high and distant flights.

It appeared to me, that the proportion of males to the females was less this autumn than last spring.

The wings of some of the males are white, and others of a dark ash color, while a portion of the larvæ are green, and others nearly black. Does the color of the larvæ designate the future sex, or the dark and light colored males?

As to the best mode of preventing the ravages of this most destructive insect, I am unable to decide. Tarring the tree is certainly effectual, if thoroughly done, in the autumn and spring.

J. Lowell, Esq. to whom we are indebted for much useful information on all the branches of rural economy, thinks lime a perfect remedy. His mode of applying it, besides destroying the larvæ of the canker worm, is highly beneficial to the trees

Dr. Spofford, represents the application of the mercurial ointment, commonly called *Unguentum*, as a complete barrier to the ascent of the grubs, or females. It is spread on strips of woollen cloth, or list, which are bound round the trees.

There are numerous other modes which have claimed attention; but the last is the most simple, and if, from multiplied experiments, it should be found to be effectual, it will take precedence, as it is not very expensive, can be easily applied, and does not require to be renewed for the season.

We have four most troublesome and destructive enemies to encounter in our orchards:—the Borer, which fells the trees; the Canker worm, and Caterpillar, which devour the leaves, and the Curculio, which preys upon the fruit. All are formidable, but the last appears to bid defiance to the warfare of the cultivator, still it is hoped, that some method will yet be discovered to destroy them; that of Dr. Tilton is deserving of attention, and, if faithfully adhered to, will at least diminish the number, and may ultimately exterminate the race.

Very respectfully,
Your most obedient servant.
H. A. S. Dearborn.

Brinley Place, Dec. 14, 1829.

(From the New England Farmer.)

PUMPKINS.

Mr. Editor,—I observed in your New England Farmer of 4th inst. an article headed, "Yankees beat this if you can!" from the New York Evening Post, giving a statement made by Mr. W. W. Taylor, of Taylorsville, Va. of his having raised in his garden the past summer, amongst some beets, three pumpkin vines, which produced 43 pumpkins that came to maturity, weighing 1899¼ lbs. the largest of which weighed 67¼ lbs.; besides these a number that did not ripen.

Being a native of New England, and in possession of facts that still give to her the palm, I have been induced on reading the above, to give you the following statement for publication, notwithstanding its substance was noticed in several of our newspapers some years since.

In April, 1815, I planted in my garden among some cucumbers, one pumpkin seed On the 29th September following, I called on several of my neighbors to assist in gathering and witnessing its productions—the result was as follows: 41 pumpkins weighing 1040 lbs.; the length of the vine, including its branches, 105 rods, or 1732½ feet—circumference of the vine's stem 9¼ inches. Ten of the largest pumpkins weighed 923¼ lbs.; viz., 135, 126¼, 97, 94, 91, 90, 90, 76, 64, 60 lbs., the remaining thirty-four weighed together 116¾ lbs. The noted tornado of 23d September so much injured the vine, that I considered it useless to leave the pumpkins any longer on it, notwithstanding it was in its most flourishing state at the commencement of the gale. The vine was spread on a grass plat, back of my house as it was measured, where it remained for public inspection from three to four weeks. On the the 14th morning after it was so spread, I discovered twenty fresh blossoms on it. The month of October was remarkably mild, and judging by the appearance of the vine, could it have remained in the ground undisturbed through the season, its product would have been increased at least fifty per cent.

I raised also in the same garden the past season, a French turnip, which weighed 20 lbs. 10 oz., after being closely trimmed. It was taken out of the ground in the month of September.

Respectfully your obedient servant,
J. Johnson.

Jewett City, New London Co. Con. Dec. 8, 1829.

ACORN SQUASH.

S. Reynolds, Esq. of Montgomery, N. Y. gives the following account of the Acorn Squash, in a letter to G. Thorburn and Son.

This plant certainly deserves the attention of every gardener. It is a great bearer, and the fruit is large and valuable. The meat is finer, sweeter, and makes a more delicious pie than any other pumpkin, and keeps good much longer. I have had them quite sound in February. But that which renders them so eminently useful for garden cultivation, is, they never fail to prove an effectual bribe for the yellow bug which so often destroys our early planted cucumber and melon plants.

This squash has a very large and succulent seed leaf, and if their seeds are planted liberally with the cucumber and melon, the insect prefers feeding upon them, and will wholly neglect the other.

For a number of years past, I have protected my chosen plants from the depredation of this hungry foe by this cheap and simple expedient, and can therefore with the utmost confidence recommend it to others for the same beneficial purpose. [*N. E. F.*

LADIES' DEPARTMENT.

Superiority of Wit and Talent over mere Beauty.

I had been dining with a French gentleman in one of the Cafes of the Palais Royal, intending afterwards to visit the Italian Opera. My friend, however, persuaded me to accompany him to the Marais, where I should hear, he said, an excellent concert, meet with some lovely women, and, if I pleased, might have a chat with the old lady of the house, who was, he added as witty, sprightly, and amiable as a young lass of eighteen. "She is certainly very ugly," he continued, "but at her age, you know, that is of little consequence." It was, perhaps, this latter remark which prevented me asking her name; and as my friend never mentioned it, I was ushered into her presence without even inquiring to whom I had come to pay a visit. The apartments were elegantly furnished; there were some forty or fifty persons present, and among them half a dozen very handsome females. On casting my eyes on the lady of the house, who was sitting in a large arm chair, I was struck with feelings I cannot easily describe. Her face absolutely terrified me; it was a sallow wrinkled, sharp, sarcastic visage; her eyes were small black and brilliant: they were perhaps fine eyes, and would have been thought so, had they been found in any other head; they shone like those of a toad. I made up my mind to remain but a short time, and chat with the prettiest woman I could find in the room, in order to drive from my thoughts, this more than disagreeable countenance. I had already approached Mlle. Ernestine S., one of the beauties of Paris, and was about to address her, when my friend who introduced me, suddenly came up and said that the old lady wished to speak to me; I followed him with great reluctance—he absolutely dragged me to the odious chair.

However, I summoned up courage, and almost torned aside my face, when in a peculiarly soft, sweet voice, the ugly dame thus addressed me: "I know, Monsieur l'Anglais, that I am causing you to make a great sacrifice. You leave one of the prettiest women in Paris for one of the most ugly—a young, for an old one; but you are the first Englishman I have ever had the honour to see, or converse with. I have heard a great deal about your nation: we were long enemies, but now we are friends: the history of Great Britain is familiar to me. I have frequently read with delight the productions of genius with which your country abounds. Most of your distinguished individuals I am acquainted with,—I mean only through the medium of newspapers, memoirs, &c. You have just sustained an immense loss in the death of the Princess—Princess—." Here she hesitated, as if she had forgotten the name, and I added, perhaps rather in a loud voice, Charlotte—it was the first word I had uttered in her presence. She was silent for a few seconds; several persons who had not overheard our conversation, but who caught the word Charlotte, turned round and stared at me.

But this circumstance I hardly noticed at the time, it was only after my departure that the idea occurred to my mind. The old lady afterwards put several questions to me respecting the lamented Princess.—She appeared delighted with my observations. We continued conversing on various topics. Her flattering, enchanting words stole upon me, besides, I began to feel vain at the decided preference shown to me over the other part of the company; and when the concert commenced, I found, on looking at my watch, that one whole hour had slipt away imperceptibly in the presence of one who, on my entrance into the room, I conceived it almost impossible to face during five minutes. When I departed with my friend, I expressed to him how much I had been delighted with the charming conversation of the ugly old lady, who had made me forget all the pretty ones. But as yet, you have not told me who the lady is, nor what is her name. My friend burst into laughter, either at his own or my absence of mind. "*Mon dieu!*" said he "*que c'est drole!* What! you have been in her own house these three hours, one third of the time you have been in earnest conversation with her, and you did not know her name?"—"how could I?" was my reply. "You were deeply engaged the whole evening in conversation with your female acquaintances; and as you omitted telling me her name before you introduced me, it would have been a very extraordinary question to have put to any stranger."—"*Vous avez, raison,*" said he, "and I will now tell you her name,—(looking me full in the face.) Her name is ——." "Well!" continued I. "Her name is—Mlle. Marat, the sister of the celebrated man, or rather monster, of the revolution, to whose features, I am told, hers bear an extraordinary resemblance."

THE FOUNTAIN OF YOUTH.

Ponce De Leon, a Spanish Adventurer, made a voyage in search of the Fountain of Youth, which was fabled to be situated somewhere in Florida.

Beguil'd by vision vain,
Full long the Adventurer stretch'd his sail
O'er seas unknown,
Bound on voyage wild and lone,
The wond'rous fount to gain,
By Indian fable plac'd
In secret vale,
And land sequester'd far in Ocean's trackless waste;
The draught miraculous to fill,
That chas'd of Age the wint'ry chill,
And spite of Time,
Made bright the brow once more;
New vigor to Life's weary springs could give,
And youth's blooming prime,
With all its joys restore.
Oh! fond the hope! and wild the dream!
Again on earth to find,
To see again revive,
The flowers Death-trodden, in Life's weary way
That glitter in its morning beam
A space, fair-smiling with the hues of Hope;
Those blooms that will not last,
E'en then, when soft the dallying wind
And laughing vernal season woo their stay,
But flee, a fragile race, the vision of a day,
That do but hope
To fade, and leave behind
The tears that swell'd within their infant eyes,
As if prophetic of the coming blast
And changing skies;
That leaves no twilight gleam
And see no star arise,
After their sun is set.
O! rather sure in Lethe's stream,
'Twere happier to forget
The Past, and all the pangs Remembrance brings,
Than the sad mockery to prove
Of youth, without its joys renewed;
O'er buried love;
And Friendship lost to weep, and feel the blight
Of Age, and all its solitude,
Without its promis'd rest.
Like cold Aurora over regions dead
Wandering unblest;
Where the pale Hours nor dews nor blossoms shed:
Hoping in vain the day that rises never
With welcome light;
Beauteous and sad, forlorn and restless ever,
Environ'd still by wilds of Death, and ever-during
Night.
LINUS.

MISCELLANEOUS.

(From the American Almanack.)

EMISSIONS OF CONTINENTAL MONEY.

The advances made from the Treasury were principally in a paper medium, which was called *Continental money*, and which in a short time depreciated; the specie value of it is given in the following estimate. The advances made at the Treasury of the United States in continental money, in old and new emissions, are estimated as follows, viz.

	Old Emission.		New Emission.	
	Dolls.	90ths.	Dolls.	90ths.
In 1776	20,064,666	66		
1777	26,426,333	01		
1778	66,965,269	34		
1779	149,703,856	77		
1780	82,908,320	47	891,236	80
1781	11,408,095	00	1,179,249	00
	$357,476,541	45	$2,070,485	80

By comparing this amount of paper money issued during the revolution, with the estimate (below) of the total expense in specie dollars, it will be seen that the average depreciation of the whole amount issued was nearly two-thirds of its original value.

EXPENSE OF THE REVOLUTIONARY WAR.

As the commerce of the United States was interrupted during the revolution, no revenue was raised from this branch of industry to sustain the great and pressing demands of the nation. Nor, indeed, had Congress power to levy a general tax on commerce, this being the prerogative of the several states. The country itself, moreover, in the midst of an oppressive war, was not in a condition to contribute pecuniary aid to the general cause, and the necessary resort of Congress was to loans and paper money. It is not possible to ascertain with certainty the expenses of the revolutionary war. An estimate was made in 1790, by the Register of the Treasury, and furnished to a committee of Congress. The following general abstract will show the results.

	Dolls.	90ths.
The estimated amount of the expenditures of 1775 and 1776 is, in specie,	20,064,666	66
1777	24,986,646	85
1778	24,289,438	26
1779	10,794,620	65
1780	8,000,000	00
1781	1,942,465	80
1782	8,632,745	85
1783	8,226,583	45
To Nov. 1st, 1784	548,525	63
Forming an amount total of	$92,485,693	15

The foregoing estimates, being confined to actual Treasury payments, are exclusive of the debts of the United States, which were incurred at various periods for the support of the war, and should be taken into a general view of the expense thereof, viz.

	Dolls.	90ths.
Army debt, upon commissioners' certificates	11,080,576	1
For supplies furnished by the citizens of the several states, and for which certificates were issued by the commissioners	3,723,625	20
For supplies furnished in the quarter-master, commissary, hospital, clothing, and marine departments, exclusive of the foraging	1,159,170	05
For supplies, on accounts settled at the Treasury, and for which certificates were issued by the Register	744,638	49
	$16,708,009	75
NOTE. The loan-office debt formed a part of the Treasury expenditures.		
The foreign expenditures, civil, military, naval, and contingencies, amount, by computation, to the sum of	$5,000,000	00
The expenditures of the several states, from the commencement of the war, to the establishment of peace, cannot be stated with any degree of certainty, because the accounts thereof remain to be settled. But as the United States have granted certain sums for the relief of the several states, to be funded by the general government, therefore, estimate the total amount of said assumption,	21,000,000	00
Estimated expense of the war, specie	$135,193,703	00

The best thing to be done when adversity pinches, is not to sit down and cry, but to rise up and work.

THE FARMER.

Baltimore, Friday, January 8, 1830.

ENCYCLOPÆDIA AMERICANA.

A popular dictionary of arts, sciences, literature, history, politics and biography, brought down to the present time; including a copious collection of original articles in American biography; on the basis of the seventh edition of the German Conversations-Lexicon. Edited by Francis Lieber, assisted by E. Wigglesworth.

The above is the title of a popular and highly useful work which is forthcoming, from the well employed and prolific press of Messrs. Carey, Lea and Carey, of Philadelphia, and from which we have copied the article Agriculture. The appearance of the second volume has afforded adequate means for the American reader to judge of the scope of the work, and that judgment has already been extensively pronounced in terms of decided and unequivocal commendation. If the encouragement to the publishers should correspond with the testimony in favour of their enterprise, and the beautiful and faithful style of its execution, the hazard of the undertaking, bold as it was, will be well compensated; and our libraries will be enriched by the most generally useful encyclopedic dictionary that has been offered to the readers of the English language. Full enough for the general scholar, and plain enough for every capacity, it is far more convenient in every view and form, than its more expensive and ponderous predecessors.

What can more clearly indicate its value, than that, besides the appearance of two pirated editions in Germany, more than eighty thousand copies have been published since 1812?

In bringing out this first American edition we have abundant security that it will be wrought in a manner to adapt it to the present state of knowledge and to our own country, in the assurance of the publishers, that all that is of general interest and enduring value in the German work has been extracted, without being, however, restrained to a servile imitation; it has served as a mould or basis rather than been rigidly copied. For articles of local interest, others suited to our people and circumstances have been substituted; subjects slightly sketched in the German have been drawn up in an ample form, by experienced hands, for the American work; modifications, abridgments, and additions, bring down the original articles to the actual state of knowledge; new discoveries, recently observed facts, and improvements in various departments have been inserted; and, finally, neither exertion nor expense have been spared to render it worthy of the success of its distinguished European prototype.

To speak of a particular and highly interesting department of the work, suffice it to say, in regard to *Biography*, that the supervision of Mr. Walsh, will ensure for it the requisite qualities of brevity, accuracy, and richness, alike judicious in the choice of important facts and the rejection of superfluous and irrelevant matter—those articles may be read with singular advantage by American scholars and students, as models of luminous arrangement and good composition; whilst, in reference to the general merits of the original work, and its susceptibility of adaptation to all classes of American readers, we have room to insert the expressions of only the first on the list of ripe scholars who have commended it; but in affairs of literature and science his name is a host in itself.

Letter from George Ticknor, Esq. of Boston.

Boston, Nov. 25, 1827.

Sir,—I am not acquainted with any book in a foreign language, which, I think, may be translated into English and published in the United States, with the needful alterations, with so much success as the Conversations-Lexicon, of which so many editions have been published in Germany. It seems to me to be suited, in a particular manner, to the present condition and wants of this country, because it contains more of that information which is useful and interesting to well-educated persons of all classes, than any other work with which I am conversant. It has made the fortunes of its publishers in Germany. It is about to be adapted to the wants of the rest of the continent, in a French translation just undertaken at Brussels; and I do not doubt, a similar adaptation of it to the United States, would be as fortunate and as successful as was the original work; because, the class of persons to whom it would be interesting, is much greater in this country than it is in Germany. George Ticknor.

Dr. Francis Lieber.

With such testimony of the value of the *Encyclopædia Americana*, it would be superfluous and vain to add our testimony; but as it is with agriculturists that we chiefly commune, and as literature, like other luxuries that would be better spared, has deserted the country to follow and settle, with riches, in large towns; we may be excused for advertising *our* readers that such a work is in progress; and for adding the expression of our belief, that every farmer would do well to supply his family with a copy of it.

The great variety of the subjects and the convenient size of the volume, will furnish amusement and instruction for readers of all ages, and will admit of being taken up and laid aside as leisure and opportunity occur. It remains only to add the terms of subscription and to wish success to the undertaking; for the benefit, no less of the public, than of the liberal and enlightened publishers.

CONDITIONS OF PUBLICATION.

1. It will be completed in twelve volumes, of from six to seven hundred pages each, handsomely printed on fine paper.

2. The second volume will appear in December, 1829; and a volume will be published every three months, until completed. The work is now so far advanced as to enable the publishers to assure the subscribers that no delay shall take place.

3. The price to subscribers will be two dollars and a half per volume, strongly done up in muslin.

Baltimore and Ohio Rail-road.

The progress of this stupendous undertaking equals the expectations of its most sanguine friends. A sufficient portion having been finished to afford a trial of the cars, several experiments have been made, and the result has proved highly flattering to the hopes of the company and the public. About a mile and a half of the road is railed, and various cars and passenger carriages have been put on for trial, the most useful of which are those on the Winans principle. With one of these, containing twenty-two passengers, one horse travelled at the rate of fifteen miles an hour. Three cars have been hitched together, loaded with eighty-four passengers, and drawn by one horse with great ease, at the rate of eight miles an hour. These experiments were made while the carriages were *new*, and of course subject to the disadvantage of all new work, which requires some use to reduce it to a state of greater freedom from friction. We have heard no one express any thing but the most perfect satisfaction with the experiments, and we have no doubt they have tended greatly to the advancement of the Rail-road cause.

The Rail-road is now nearly ready for the rails, as far as Ellicott's mills, a distance of about thirteen miles, including by far the most difficult and expensive part of the whole route; and sixteen miles more, beyond Ellicott's, is in a state of great forwardness. The bridge over Gwynn's falls, is one of the most magnificent pieces of architecture in America. There are other works much greater in magnitude, and more costly, but in every thing that constitutes grandeur in architecture, we hazard little in saying, this stands unrivalled. Its proportions, workmanship, and materials, are all beautifully adapted to each other, and the whole to the object in view. It is neither too high for its length nor the reverse; neither is it too heavy nor too light. It does not seem to bear too heavily on any part, nor yet cause the observer to shudder for the safety of the passengers, in consequence of any apparent want of strength. The arch is grand, not ostentatious; and the whole structure magnificent without any other apparent aim than utility.

So far as the experiments have gone, Rail-roads have obtained a decided advantage over canals, both in Europe and America.

These advantages are, indeed, so striking and undeniable, since the late illustrations with locomotive engines in England; that it is not easy to perceive how any public agents, entrusted with money to be expended for the promotion of internal trade, could now answer to the public for giving preference to canals. The responsibility of such agents is not only to the existing public but to posterity, and if those who expend public means on canals at *this time*, should twenty years hence escape with being only laughed at, they will be more or less fortunate only in the degree that ridicule is or is not easier to be borne than indignant rebuke. A gentleman told us the other day, that the damage to the banks of the Delaware and Chesapeake Canal was already greater than will be compensated by the toll to be derived from passenger boats; and these boats, be it remembered, with six horses move not as fast as *one* horse has done with eighty, or one hundred passengers on the Baltimore Rail-road—all this is not now, matter of speculation, but of demonstration.

Chesapeake and Delaware Canal.

Strange that for passengers this work is not superseded by a rail road!—We have seen it stated that the toll paid by the canal boats of one line is $14,000, but be that as it may, there are two or three simple acknowledged facts, that in all conscience ought to be sufficient to satisfy any rational mind. We know that at six miles an hour, with six horses, the banks sustain almost irreparable injury, and it has been said to be matter of deliberation whether the company will not have to put a stop to passenger boats, which take two hours and a half to pass through. On the other hand, we know that even with horse power, the greatest number of passengers that ever cross at one time might be taken across in half the time, with four horses. But horse power will give way to locomotive engines that will take their passengers over, whether many or few, in half an hour! Why then hesitate to construct one at once? the ground is of all others best adapted to it. The topography is suitable, the distance short, the travelling great; and altogether, it is only surprising that the first rail-road in America should not have been constructed on this route. The incomparable advantages of these structures for travelling, would have been there demonstrated under the eyes of travellers from all points of the compass, who would have spread the knowledge of their principles and facilities through every state, and to the remotest sections of the union. Were not "the sinews of power" with us, of all commodities in nature, the scarcest, we should not desire a better investment than a rail-road would have been for the Union Company years ago, one member of which could have supplied the needful. But no, we are too much the slaves of the "wait, wait, wait, time enough" policy. The Baltimore and Ohio Rail-road is an illustrious instance of that sagacity, which knows when to say, now is the accepted time; and verily its projectors shall have their reward.

LATEST FOREIGN NEWS.

By the Caledonia at New York, Liverpool dates have been received to the 1st December. A Liverpool correspondent under date of December 1st, says, that "accounts from all the commercial ports in England, Ireland and Scotland, are of the most distressing description relative to the late gales. We expect every post will bring statements of great losses among the shipping." Among the disasters is the loss of the Franklin from New York.

Through a private correspondent, the Times informs its readers that an effort will be made during the next session of Parliament, to emancipate the Jews!

RAIL-ROADS.—The shares in the Liverpool and Manchester rail-road sold, before the act was obtained, as high 58 guineas premium. On the 20th of November they were sold at £162 per share, namely, £90, the amount of calls on each, and £72 premium. The Bolton and Leigh railway shares are now at a premium of £2; and the shares in the Wigan railway, though only projected three weeks ago, are all taken up, and already at a prem. of £4 per share.

Foreign Grain in Bond.—The following is the official account of the quantities of Foreign Grain in warehouse in the United Kingdom on the 1st of November, 1829:—Wheat, 200,430 quarters; Barley, 54,970 qrs; Oats, 459,118 qrs; Rye, 26,055; qrs; Peas, 23,091 qrs; Beans, 26,139 qrs; Maize or Indian Corn, 1993 qrs; Buckwheat, 3264 qrs: Total, 795,562 qrs. Wheat meal or flour, 57,237 cwt.

Greece.—The Universal Gazette of Greece of Oct. 7th gives an account of the latest affairs between the Turks and Greeks in Livadia, as contained in a dispatch from D. Ypsilanti Kolomota. He had occupied the strong position of Petra, to prevent the advance of the enemy, who was posted within cannon shot with a force of 7000 men. The Turks advanced in a body, at day break on the 24th Sept. with four cannon, from which grape shot was fired without intermission. The Albanians who were with them fought desperately. They were, however, repulsed with great loss. Two standards were taken.

Liverpool, Dec. 1, 1829.

State of Trade.—Our own private letters, at hand by this morning's post, are full of distressing accounts from the manufacturing districts: they state their inability to discover any of the "*improvements in trade*"—the accounts of which are put forth in the daily papers. The only improvement is a partial increase, by a further working of our extensive machinery, which may be said is to prevent its entire ruin, by being unemployed. There are no extensive sales—no extensive orders—no improvement in prices for the master or the men: the former are daily becoming *bankrupts,* and the latter *inmates of the poor-house.* Great sales of cotton during the last week are said to have taken place; but there is necessarily much inaccuracy in ascertaining the quantity taken on speculation. On careful inquiry we are forced back to the conclusion, that prices have not yet accommodated themselves to the altered value of the currency; and we may expect to endure much distress before we arrive at the lowest ebb. The large sales of cotton lately may easily be accounted for; but this circumstance cannot fairly be attributed to a sound improvement in trade generally. Many Manchester dealers are speculating on a deficient crop, and several of the large spinners have also made heavy purchases from the same expectation; so that the extent of the sales generally, is not a fair indication of the improvement which the newspapers appear so anxious to represent.

LONDON MARKETS, *Nov.* 27.

COTTON.—The prices have advanced ¼d to ½d per lb. and the market is firm at the improvement. The estimated sales this week, ending last night inclusive, consist of 200 Bengal 3 5-8d a 3 ¾d; 4,700 Surat, 3 1-8 a 5 1-8d; 200 do. public sale, 3 5-8d; 100 Madras, public sale, 4 7-8; 100 New Orleans, 5½d a 6¼d; 80 Bowed, 5 1-8d.

RICE.—Bengal white rice is 6d to 1s lower, good being sold at 10s 6d and 11s. By public sale this forenoon 1,060 bags middling white Bengal Patna kind, in bond, sold at 12s a 12s 6d, being a shade under the market prices.

TOBACCO.—There are no sales worth reporting.

Liverpool, Nov. 28.

COTTON.—There has continued a steady demand for cotton throughout the week without any alteration in prices excepting those of Brazil and Egypt descriptions, which have improved about 1-8d per lb. on our last quotations. The sales amount to 14,350 bags, consisting of 1640 Bowed at 5d to 6¾d, (95 at 7d) chiefly at 6d to 6¼d for middling to fair; 1800 Orleans at 5½d to 8d (10 at 8½d) chiefly at 6½d to 7d for good fair to good; 1860 Alabama and Mobile at 5½ to 6 3-8d; 130 Sea Island at 12¾d to 16¼d; 75 stained do at 6d to 7½d; 620 Pernambuco at 7 3-8d to 7 5-8d; 1670 Maranham at 6½ to 7d (10 at 7¼d;) 1510 Bahia, at 5¾d to 6¾d; 1500 Egyptian at 6 1-8d to 7¼d (30 at 8¼d;) 60 Demerara at 6 1-8d to 7 5-8d; 110 Carthagena at 4 5-8d; 380 Surat at 3½d to 5¼d. The arrivals are only 25 bags.

The demand for tobacco since our last has been rather limited, but prices remain without alteration. Nothing worthy of notice has been done in any description of rice. With a rather better supply of grain from Ireland than for some weeks previously, there has been a fair demand for wheat, oats and barley, without any change in prices. American flour sells steadily for export at our quoted prices.

Turpentine having become rather scarce, an advance of 6d to 9d per cwt; and the remainder, Phild. brought 11s to 12s has been established; the sales are 2500 brls. at 10s 9d to 11s per cwt. from the quay. American tar is wanted: 60 brls. Stockholm brought 15s per brl. The demand for ashes remains steady; prices of pot are maintained and pearl have advanced 1s per cwt: the sales of the week are 400 brls.

FLOUR.—Am. sour, 34s to 36s; do sweet, per brl. 34 to 36, do in bond, 23 to 24. Indian corn per 480 lbs. 33 to 35. Wheat Eng. 8s a 10s 3d; Irish 7s 6d to 9; Quebec, duty 6d per qr 10s a 10 3d: Foreign duty 30s 8d per qr. 7s to 9s 6d.

Owing to constant winds, and the boisterous state of the weather, we have had scarcely any arrivals of grain since Tuesday, and new wheat must be noted 1d and oats ¼d per bushel dearer, and there is now very little of either article at market. All other kinds of grain, flour and oatmeal fully support Tuesday's prices.

Nov. 30.—COTTON.—The demand throughout the day has been fair; the sales of Saturday and this day amount to about 3500 at the prices of last week.

Dec. 1.—SALES OF COTTON.—The sales of cotton during the last three months have amounted to 253,000 bags, giving, on an average, a weekly sale of 19,500 bags. Of this quantity 20,000 bags have been taken on speculation, and 16,000 for export, the remainder being for actual consumption. These sales are almost unprecedented at this season of the year.

IMPORTS OF COTTON.—The imports of cotton during the month of November, which has just closed, have been much smaller than they have been in the same month for several years past. They amount altogether to only about 9000 bales; last year they were upwards of 30,000. The smallness of the quantity is principally occasioned by the lateness of the crops, united to the easterly winds which have prevailed during the last fortnight, and by which American and other foreign vessels have been kept out of this port.

ALMANAC.

1830. JANUARY.	SUN. Rises.	SUN. Sets.	Length of days.	Moon.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 9	7 19	4 41	9 22	rises.
Sunday,........ 10	7 18	4 42	9 24	6 25
Monday,....... 11	7 17	4 43	9 26	7 22
Tuesday,....... 12	7 16	4 44	9 28	8 16
Wednesday,... 13	7 16	4 44	9 28	9 10
Thursday...... 14	7 16	4 44	9 28	10 07
Friday.......... 15	7 15	4 45	9 30	10 59

Moon—Last Quarter 16th 5 h. 1 m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

BALTIMORE MARKETS.—There has been little change in the prices of produce, and no occurrence worthy of remark during the week. A steady business is doing in the market, and our quotations exhibit as fair rates of prices as can be arrived at. The wagon price of Howard street flour is $4.50. Our quotation for pork is intended for droves—family pork from wagons, prime, is selling at $5.50 a 5.75.

TOBACCO.—Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12.00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week comprise 383 hogsheads Maryland, 14 hogsheads Ohio, and 61 hhds. Va.—Total 458 hhds.

FLOUR—best white wheat family, $6.00 *a* 6.50—super. Howard st. 4.62½ *a* 4.75 city mills, 4.25 *a*—; Susquehanna, —. CORN MEAL, bbl. 2.25 *a* 2.37½—GRAIN, best red wheat, .80 *a* .85; best white do. .92 *a* .95; ordinary to good, .70 *a*. .75—CORN, old white, .30 *a* 31; yel. .30 *a* 31; new .— *a* ——RYE, .47 *a* —OATS, .30 *a* .31. BEANS, 90 *a* 1.10—PEAS, .64 *a* —CLOVER SEED, 4.50 *a* ——TIMOTHY, 2.50——ORCHARD GRASS, 2.00 ——Herd's, —*a* 1.50—Lucerne .37½ *a* .50 lb.—BARLEY, .50 *a* .55—FLAXSEED, 1.10—COTTON, Vir. .9¼ *a* .10½ Lou. .11 *a* .12—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—WHISKEY, hhds. 1st p. .23½ *a* .—; in bbls. .25 *a* ——WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .26 *a* .30—full do. .30 *a* .35, accord'g to qual.—HEMP, Russia, ton, $220 *a* 225; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, — *a* 6.25; No. 2, 5.75 *a* —— No. 3, 3.75 *a* 4.50 —BACON, hams, Balt. cured, .9 *a* .9½—Feathers, .32 *a*.——Plaster Paris, cargo price per ton, 4.62½, ground, 1.25 bbl.—Prime Beef on the hoof, 3.75 *a* 5.50—Pork on the hoof, 4.85 *a* 5.50—Pine Wood, by the vessel load, 2.25 to 2.50; by the single cord, 2.75—Oak Wood, 3.25 to 3.50 Hickory, 5.

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AGRICULTURE.

(From the Encyclopædia Americana.)

Agriculture of the U. States of America.

The territory of the U. States is very extensive, and presents almost every variety of soil and climate. The agriculture of this wide-spread country embraces all the products of European cultivation, together with some (such as sugar and indigo) which are rarely made objects of tillage in any part of Europe. A full description of the agriculture of these states would require a large volume. We shall confine ourselves to such sketches as we may deem of most practical importance to those who are or intend to become cultivators of North American soil.—The farms of the Eastern, Northern and Middle States consist, generally, of from 50 to 200 acres, seldom rising to more than 300, and generally falling short of 200 acres. These farms are enclosed, and divided either by stone walls, or rail fences made of timber, hedges not being common. The building first erected on a "new lot," or on a tract of land not yet cleared from its native growth of timber, is what is called a *log-house*. This is a hut or cabin made of round, straight logs, about a foot in diameter, lying on each other, and notched in at the corners. The intervals between the logs are filled with slips of wood, and the crevices generally stopped with mortar made of clay. The fire-place commonly consists of rough stones, so placed as to form a hearth, on which wood may be burned. Sometimes these stones are made to assume the form of a chimney, and are carried up through the roof; and sometimes a hole in the roof is the only substitute for a chimney. The roof is made of rafters, forming an acute angle at the summit of the erection, and is covered with shingles, commonly split from pine-trees, or with bark, peeled from the hemlock (*pinus canadensis*.)—When the occupant or "first settler" of "this new land" finds himself in "comfortable circumstances," he builds what is styled a "frame house," composed of timber, held together by tenons, mortises and pins, and boarded, shingled and clap-boarded on the outside, and often painted white, sometimes red. Houses of this kind generally contain a dining-room and kitchen and three or four bed-rooms on the same floor. They are rarely destitute of good cellars, which the nature of the climate renders almost indispensable. The farm-buildings consist of a barn, proportioned to the size of the farm, with stalls for horses and cows on each side, and a threshing-floor in the middle; and the more wealthy farmers add a cellar under the barn, a part of which receives the manure from the stalls, and another part serves as a store-room for roots, &c. for feeding stock. What is called a *corn-barn* is likewise very common, which is built exclusively for storing the ears of Indian corn. The sleepers of this building are generally set up four or five feet from the ground, on smooth stone posts or pillars, which rats, mice or other vermin cannot ascend.—With regard to the best manner of clearing forest-land from its natural growth of timber, the following observations may be of use to a "first settler." In those parts of the country where wood is of but little value, the trees are felled in one of the summer months, the earlier in the season the better, as the stumps will be less apt to sprout, and the trees will have a longer time to dry. The trees lie till the following spring, when such limbs as are not very near the ground should be cut off, that they may burn the better. Fire must be put to them in the driest part of the month of May, or, if the whole of that month prove wet, it may be applied in the beginning of June. Only the bodies of the trees will remain after burning, and some of them will be burned into pieces. Those which require to be made shorter are cut in pieces nearly of a length, drawn together by oxen, piled in close heaps, and burned, such trees and logs being reserved as may be needed for fencing the *lot*. The heating of the soil so destroys the green roots, and the ashes made by the burning are so beneficial as manure to the land, that it will produce a good crop of wheat or Indian corn without ploughing, hoeing or manuring.—If new land lie in such a situation that its natural growth may turn to better account, whether for timber or fire-wood, it will be an unpardonable waste to burn the wood on the ground. But if the trees be taken off, the land must be ploughed after clearing, or it will not produce a crop of any kind.—The following remarks on this subject are extracted from some observations by Samuel Preston, of Stockport, Pennsylvania, a very observing cultivator. They were first published in the New England Farmer, Boston, Massachusetts, and may prove serviceable to settlers on uncleared lands. Previous to undertaking to clear land, Mr. Preston advises,—"1st. Take a view of all large trees, and see which way they may be felled for the greatest number of small trees to be felled along-side or on them After felling the large trees, only lop down their limbs; but all such as are felled near them should be cut in suitable lengths for two men to roll and pile about the large trees, by which means they may be nearly all burned up, without cutting into lengths, or the expense of a strong team, to draw them together. 2d. Fell all the other trees parallel, and cut them into suitable lengths, that they may be readily rolled together without a team, always cutting the largest trees first, that the smallest may be loose on the top, to feed the fires. 3d. On hill-sides, fell the timber in a level direction; then the logs will roll together; but if the trees are felled down hill, all the logs must be turned round before they can be rolled, and there will be stumps in the way. 4th. By following these directions, two men may readily heap and burn most of the timber, without requiring any team; and perhaps the brands and the remains of the log-heaps may all be wanted to burn up the old, fallen trees. After proceeding as directed, the ground will be clear for a team and sled to draw the remains of the heaps where they may be wanted round the old logs. Never attempt either to chop or draw a large log, until the size and weight are reduced by fire. The more fire-heaps there are made on the clearing, the better, particularly about the old logs, where there is rotten wood. The best time of the year to fell the timber in a great measure depends on the season's being wet or dry. Most people prefer having it felled in the month of June, when the leaves are of full size. Then, by spreading the leaves and brush over the ground (for they should not be heaped,) if there should be a very dry time the next May, fire may be turned through it, and will burn the leaves, limbs and top of the ground, so that a very good crop of Indian corn and pompkins may be raised among the logs by hoeing. After these crops come off, the land may be cleared and sowed late with rye and timothy grass, or with oats and timothy in the spring. If what is called a *good burn* cannot be had in May, keep the fire out until some very dry time in July or August; then clear off the land, and sow wheat or rye and timothy, harrowing several times, both before and after sowing; for, after the fire has been over the ground, the sod of timothy should be introduced as soon as the other crops will admit, to prevent briers, alders, fire-cherries, &c. from springing up from such seeds as were not consumed by the fire. The timothy should stand four or five years, either for mowing or pasture, until the small roots of the forest-trees are rotten; then it may be ploughed; and the best mode which I have observed is, to plough it very shallow in the autumn; in the spring, cross-plough it deeper, harrow it well, and it will produce a first-rate crop of Indian corn and potatoes, and, the next season, the largest and best crop of flax that I have ever seen, and be in order to cultivate with any kinds of grain, or to lay down again with grass.—These directions are to be understood as applying to what are generally called *beech lands*, and the chopping may be done any time in the winter, when the snow is not too deep to cut low stumps, as the leaves are then on the ground. By leaving the brush spread abroad, I have known such winter choppings to burn as well in a dry time in August as that which had been cut the summer before."—The agricultural implements and farming operations of the United States are, in most particulars, very similar to those of Great Britain. Circumstances, however, require variations, which the sagacity of the American cultivator will lead him to adopt, often in contradiction to the opinions of those who understand the science better than the practice of husbandry. In Europe, land is dear and labor cheap; but in the United States, the reverse is the case. The European cultivator is led, by a regard to his own interest, to endeavour to make the most of his land; the American cultivator has the same inducement to make the most of his labor. Perhaps, however, this principle, in America, is generally carried to an unprofitable extreme, and the farmers would derive more benefit from their land, if they were to limit their operations to such parts of their possessions as they can afford to till thoroughly and to manure abundantly. A man may possess a large landed estate, without being called on by good husbandry to hack and scratch over the whole, as evidence of his title. He may cultivate well those parts which are naturally most fertile, and suffer the rest to remain woodland, or, having cleared a part, lay it down to permanent pasture, which will yield him an annual profit, without requiring much labor.—The climate and soil of the United States are adapted to the cultivation of Indian corn, a very valuable vegetable, which, it has been supposed, could not be raised to advantage in Great Britain.[*] This entirely and very advantageously supersedes the field culture of the horse-bean (*vicia faba*,) one of the most common fallow crops in that island. The *root husbandry*, or the raising of roots for the purpose of feeding cattle, is likewise of less importance in the United States than in Great Britain. The winters are so severe in the northern sections of the Union, that turnips can rarely be fed on the ground, and all sorts of roots are with more difficulty preserved and dealt out to stock, in this country, than in those which possess a milder climate. Besides, hay is more easily made from grass in the United States than in Great Britain, owing to the season for hay-making being generally more dry, and the sun more powerful. There are many other circumstances which favor the American farmer, and render his situation more eligible than that of the European. He is generally the owner as well as the occupier of the soil which he cultivates; it is not burthened with tithes; his taxes are light; and the product of his labors will command more of the necessaries, comforts and innocent luxuries of life.—The American public seem, at present, fully aware of the importance of spirited and scientific agriculture. The state of Massachusetts has appropriated considerable sums to add to the funds of the agricultural societies in that commonwealth. Institutions for the promotion of husbandry, cattle-shows and exhibitions of manufactures are common in every part of the Union. A periodical publication, entitled the *American Farmer*, is established at Baltimore, and another, called the *New England Farmer*, is published in Boston. Men of talents, wealth and enterprise have distinguished themselves by their laborious and liberal efforts for the improvement of American husbandry. Merino sheep have been imported by General Humphreys, Chancellor Livingston and others, and are now common in the United States. The most celebrated breeds of British cattle have been imported by Colonel Powel of Powelton, near Philadelphia; and there prevails a general disposition, among men of intelligence and high standing in the community, to promote the prosperity of American agriculture.—We shall conclude with a few brief notices of some of the most prominent benefits and improvements which modern science has contributed to the art of agriculture. The husbandmen of antiquity, as well as those of the middle ages, were destitute of many advantages enjoyed by the modern cultivator. Neither the practical nor the theoretical agricultursts of those periods had any correct knowledge of geology, mineralogy, chemistry, botany, vegetabe physiology or natural philosophy; but these scences have given the modern husbandman the command of important agents, elements and principles, of which the ancients had no idea. The precepts of their writers were conformable to their experience; but the *rationale* of, the practices they prescribed they could not, and rarely attempted to explain. Nature's most simple modes of operation were to them inexplicable, and their ignorance of causes often led to erroneous calculations with regard to effects. We are indebted to modern science for the following among other improvements: viz. 1. A correct knowledge of the nature and properties of manures, mineral, animal and vegetable; the best modes of applying them, and the particular crops for which particular sorts of manures are best suited. 2. The method of using all manures of animal and vegetable origin while fresh, before the sun, air and rain, or other moisture, has robbed them of their most valuable properties. It was formerly the practice to place barn-yard manure in layers or masses for the purpose of rotting, and turn it over frequently with the plough or spade, till the whole had become a mere *caput mortuum*, destitute of almost all its original fertilizing substances, and deteriorated in quality almost as much as it was reduced in quantity. 3. The knowledge and means of chemically analyzing soils, by which we can ascertain their constituent parts, and thus learn what substances are wanted to increase their fertility. 4. The introduction of the root husbandry, or the raising of potatoes, turnips, mangel-wurzel, &c. extensively, by field husbandry, for feeding cattle, by which a given quantity of land may be made to produce much more nutritive matter than if it were occupied by grain or grass crops, and the health as well as the thriving of the animals in the winter season greatly promoted. 5. Laying down lands to grass, either for pasture or mowing, with a greater variety of grasses, and with kinds adapted to a greater variety of soils; such as orchard-grass (*dactylis glomerata*,) for dry land, foul-meadow-grass (*agrostis stricta*,) for very wet land; herd's-grass or timothy (*phleum pratense*,) for stiff, clayey soils, &c. &c. 6. The substitution of fallow crops (or such crops as require cultivation and stirring of the ground while the plants are growing,) in the place of naked fallows, in which the land is allowed to remain without yielding any profitable product, in order to renew its fertility. Fields may be so foul with weeds as to require a fallow, but not what is too often understood by that term in this country. "In England, when a farmer is compelled to fallow a field, he lets the weeds grow into blossom, and then turns them down; in America, a fallow means a field where the produce is a crop of weeds running to seed, instead of a crop of grain." 7. The art of breeding the best animals and the best vegetables, by a judicious selection of individuals to propagate from.—These improvements, with others too numerous to be here specified, have rendered the agriculture of the present period very different from that of the middle ages when it had sunk far below the degree of perfection which it had reached among the Romans.

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[*] Mr. Cobbett has lately attempted to raise Indian corn in England. In a book which he published in London, 1828, (*A Treatise on Cobbett's Corn*,) he professes to have met with much success in the culture of it.

BOARD OF AGRICULTURE.

This Board held its annual meeting some days since in the Senate Chamber; and after receiving such communications as were made by the delegates from the several Agricultural Societies present, and ordering a fresh supply of Grape Vine Cuttings for each of the Societies connected with the Board, the following officers were re-appointed for the ensuing year, viz: *Charles Fisher*, Esq. President; *James Mebane*, Esq. Vice-President, and *J. Gales*, Secr'y.

The several delegates will please to call on the Secretary for the 10th Volume of the American Farmer, for the use of the several Agricultural Societies. [*Raleigh N. C. Reg.*

SHORT HORNS.

White Post, Frederick Cty. Dec. 22, 1829.

Mr. Davis.—I beg leave to state, through the medium of the Republican, that I have been induced to test the merits of our late short-horn enterprise, as far as experiment will yet permit, by weighing the first calf that has been bred in our county, and recorded on the herd book, from a belief that it will be useful and gratifying to the public, as well as to an individual, and highly necessary to moderate that incredulity which perhaps is naturally enough indulged, in novel or extraordinary reports of animal or vegetable production. A calf called Powel, 7 months and 25 days old, sired by Edward, 2 years and 10 months old, and supposed to weigh between 1800 and 2000 pounds, raised by Col. J. H. Powel, of Phil. and descended from Lady and Malcolm,—Powel, on the mother's side, from Blossom, the premium heifer at an exhibition of the Valley Society in 1826, a blooded cow of the original short-horn stock introduced by our fathers,—was weighed on the 22d inst. in the presence of Mr. Philip Nelson, Nathaniel Burwell, Rev. Thos. Kennerly, Henry Catlett, Thomas Nelson, David Meade, &c. in the scales, to the amount of 708 pounds. He has had no other keeping than that supplied by nature, running with his mother in pastures where 45 cattle have been kept, until the beginning of the winter, when they were distributed into their different pens, to be treated according to age and circumstances.

Already have all the male calves raised in the neighborhood been sold at $25 each, with a demand for more. The company owning the bull (Edward) will be gratified, now that he is of sufficient age, to make him useful to farmers. It is proposed to exhibit these animals at our spring election, when judges will have an opportunity of saying whether their points and form do not well correspond with their great weight.

Respectfully, &c.
Richard K. Meade.

HORTICULTURE.

Preparation of Pea-nut or Ground Pea-nut, *Arachis Hypogea*, Lin. and its Culture.

Horticultural Bot. Garden, Brooklyn,
New York, Jan. 2, 1830.

J. S. Skinner, Esq.

I am always anxious to see some improvement made in the agriculture of the United States. It appears to me that the advantages derived by the south, as well as the whole union from their cotton and rice, might be augmented by the culture of pea nuts, and I wish their exertions would extend to other articles of cultivation. I shall not speak of the mulberry tree, which grows on poor soil; nor of the rearing of silk worms, of whose advantages they are fully aware. Of the cultivation of the vine, I may relate one fact; at Chapel Hill, N. C. a gentleman planted this spring 400 vines which came from me. They have grown from 12 to 16 feet in one year; in the same time, this gentleman saw the same vines in my garden which have grown only from 15 to 18 inches, both imported last spring. This shows the advantage of the climate and of the soil; it would afford me great pleasure, if by my exertions I could be able to requite the liberal patronage I have received from the gentlemen living in that beautiful part of the country. I think the cultivation of the pea-nut would be of great advantage; it is already known for eating, but it is not of any use here (that I know of) for the making of oil. I relate here the experiment made in Piedmont, where they began the cultivation of the pea-nut in 1804. The year before the seed was sent by the minister of the interior of France, (that country being incorporated at that time under the French government) to M. Giobert, secretary of the Agricultural Society of Turin, where it was cultivated in the garden of the society under the care of M. Navolone. This experiment which was the first in Piedmont, was so successful that cultivations to large extent were made of that plant.

In 1805, M. Bnrsarelli, chemist in Turin, by the invitation of M. Navolone extracted the oil, and gave on this subject some very useful information which deserves to be known.

M. Borsarelli has operated upon three pounds three ounces of pea-nuts, after having mashed them and pressed them without any other preparation, and obtained one pound and one ounce of good oil, being a third part; and M. Borsarelli believes that if the pea-nuts had attained a greater degree of siccity or dryness, he would have had a larger quantity of oil.

The pea-nut oil obtained in this manner, by a single pression, has an agreeable smell, the flavour was nearly that of hazelnut oil; it was entirely free of that rancid taste so common to nut and rape oils. Pea-nut oil used in salad was as sweet and as savoury as olive oil.

All the properties of this oil appear to be near those of olive oil, and even that of almonds. It may be kept without becoming rancid. M. Borsarelli gave this information in 1811, and has kept some of the oil since 1805. The specific weight of linseed oil comparatively with that of water, being 9403 to 10,000, and that of olive oil is 9153, that of pea-nut is 9132.

It was natural to think that this oil would contain some mucilage. M. Borsarelli occupied himself about the manner of separating it, and he operated in the following manner: he first began by the method advised by Doctor Bonvoisin, and used by him on the olive oil, which consists in employing sulphuric acid. Having poured one hundreth part of sulphuric acid upon two ounces of oil, and having shaken the vial, he saw the liquor turn brownish; exposed in the sun for two days, it deposited carbonic matter. Some water was afterwards poured on the mixture; after having shaken it again, decanted and filtered it, the oil came out very white and very clear, but it had taken a burnt taste, and had more tendency to condense itself.

M. Borsarelli afterwards tried the method indicated by M. Maistre, in the transactions of the academy of Turin for the olive oil, in the years 1792 and 1800, which consist in employing carbonated magnesia, an eighth of an ounce of this magnesia well pulverised has perfectly clarified one ounce of oil, his process was to shake the mixture, to expose to the sun and to filter it afterwards. The oil passed limpid, without any smell and of a proper fluidity. The residue in the filter was mixed with mucilage. It remained to him to ascertain the advantages of the use of this oil for light, in this view he made the experiment with pea-nut oil, without any preparation, and the oils purified by carbonated magnesia, and also that with sulphuric acid, comparatively with olive oil. These experiments have proved that the oil clarified with the magnesia gave the best light and had the least smoke M. Borsarelli also ascertained the use which could be made with the remaining substance (*marc*,) taken from the press. It may be used to fatten poultry, he also thinks, that it can be employed for starch, and to replace almond paste in perfumery.

The pea-nuts may be sown in Virginia and more south, from April to May, and more north or west one month later; it is necessary to have the ground ploughed, and drills are made one foot broad, and the hills six inches high, all parallel. It is on the tops of those hills that the pea-nut seeds are put from one to two inches deep, and from six to eight inches apart. When the plants begin to grow they are hoed and hilled, this operation is renewed when the seed is formed, and would be injurious in the the time of blossoming; the ground must be kept clear of weeds.

A light and moist soil is the best adapted for the pea-nut, their capsules cannot be introduced in a clayey soil, and would give but little produce in a dry sandy soil; in Spain, following Don Ulloa, the ordinary cultivation gives 100 for one, and a careful cultivation 200 and 300. The drying of the leaves indicate the maturity of the seed, and he says that in Spain the seeds produce nearly the half of oil, and the remainder of the substance (*marc*,) taken from the press is generally used for half or two thirds in the manufacture of chocolate, and the oil is very much employed in the composition of soap.

I am very respectfully,
Andrew Parmentier.

SUSQUEHANNA GRAPE.

J. S. Skinner, Esq. *Linnæan Garden, Jan.* 4, 1830.

Dear Sir,—I am glad to see in your last paper detailed statements relative to two varieties of the grape from the pen of Mr. Garber, than whom few gentlemen are more capable of imparting information on the subject.—I wish however to add one word as regards Mr. Garber's letter to me *correcting the first account* of Mr. Funk's grape. It was not received by me until the *very same week* you inserted the *first* account, or I should have requested you not to insert the former one. It has been my intention since to send you the extract from Mr. Garber's second letter on the subject, correcting the first—and that letter was placed on file for the purpose—but Mr. G. having made the explanation of the matter any further remarks from me are unnecessary. I perfectly agree with Mr. G. that the vine be kindly procured for me, and for which he paid $2, under the name of the *Deninger or Susquehanna* grape, is truly the common *Meunier* or *Miller's Burgundy* of France, and on this account I have declined sending it to the numerous applicants for it, several of whom requested it at any price, but have stated to them the error that existed in regard to it.

I hope the spirit of inquiry and elucidation which happily exists, will speedily eventuate in those correct distinctions so necessary to the true interests of horticulture,—and I trust the extensive list of synonymes attached to the treatise on the vine I am now publishing will contribute much to so desirable an end.

Yours, very respectfully,
Wm. Prince.

CULTURE OF INDIGO.

J. S. Skinner, Esq. *Orangeburgh, S.C. Dec.* 30, 1829.

Sir,—Seeing in your paper an account extensively circulated, of a small quantity of indigo, made at a place in North Carolina, my attention was called to the extent of its culture in this district. Indigo has been cultivated here from its first introduction into this country; and for several of the last years, thirty or forty thousand pounds per annum, have been made in this district; and some of it was pronounced the last summer in my presence, in New York, by the best of judges to be equal in quality "to any indigo from any country." This is the section of country which principally supplied Great Britain with indigo, before and for a considerable period, subsequent to the revolutionary war: and this state alone could supply all the indigo, necessary for the United States.

RURAL ECONOMY.

(From the New England Farmer.)

MANUFACTURE OF CIDER.

Extracts of a letter written by an eminent agriculturist in Hallowell, Me. and directed to Hon. J. W. Boston.

Some persons from Devonshire, in England, having assured me here that cider was made in that country which would remain good for two or three years, though *not placed in cellars*, but kept on ground floors, I detained one of them in my employ through the last spring and summer, as having been the principal manager on a considerable farm near Exeter, making a number of hundred large barrels of cider annually. As I have reason to be content with the measure, I presume now to recommend the party to you.

My custom had been, to grind my apples when ripe for *eating;* whereas he has taught me, (as I find was the practice in his neighborhood, and is so in part of France,) to grind them when *most fully ripe*, even though some of them should become past that state; but rejecting those which were musty or fairly decayed. Another principle has been, to grind all that were ripe *together;* without regard to their kinds. A third was, to grind with iron nuts, of small length and placed *horizontally*. It is very true that for this last purpose, I have been obliged to use a substitute, namely, to employ my wooden perpendicular nuts *twice* to the same apples; but so as to add twenty per cent. without water to my cider; the last being still very good. My press, however, like that of Devonshire, is very powerful. I enumerate only a *part* of his principles; but hitherto I have reason to think very highly of them. His master supplied the table of Lord Clifford, and various country gentlemen, besides some physicians at Exeter; sending some of his crop also to the London market. His master's grinding lasted 4 or 5 months, consisting for much the larger part of his crop, of *wind falls*, by system. I am going to send for iron nuts to England, where they cost only a few pounds; and shall lend them to my friend Mr. R. H. G. to serve for models for casting at his furnace. I have examined large iron *perpendicular* nuts sold here, but rejected them as more costly, and much less efficient; the Devonshire nuts making dry pomace at *once*. Some *horizontal* ones exist in Pennsylvania.

The quantity of cider produced in the county of Devon, (England) this year exceeds all former precedent in the memory of man; one individual is stated to calculate on making more than 4,000 hogsheads. The number of empty casks landed at Exeter, from London and other places, has been extraordinarily large, it being computed that including home manufacture, at least 12,000 have been sold in Exeter.

Humboldt calculates that one acre of ground planted with the banana, is quite sufficient to support fifty men, while an acre of wheat, would barely supply the wants of three.

Hypocrisy is the homage which vice pays to virtue.

Endive, or Succory, substitute for Coffee.

A communication made to the London Medico Botanical Society, states, that the root of Endive, or Succory, roasted and reduced to a powder, is an excellent substitute for tea or coffee. It is in general use in Russia. This information is considered valuable in England.

[Succory is in very general use in Baltimore, and may be obtained at nearly all the shops. It is generally used in combination with coffee, and is said to add both to the flavour and color of the beverage.]

INTERNAL IMPROVEMENT.

(From the Daily Cincinnati Gazette.)

STEAM BOATS IN THE WEST.

To a native of the West, the rapid improvement which has taken place in almost every thing that strikes the eye, is a subject of the most intense interest. In retrospecting through the last thirty years, the changes have more the appearance of the extravagant shiftings of a dream, than the usual progress of reality.—Strangers describe us as having a powerful propensity for self-praise, and boasting; no doubt we deserve much of this censure; the cause of it, however, is not to be sought in any peculiarity of national feeling, but may be traced to the circumstances of the period and regions in which we live. A few years will be sufficient to connect this sentiment of pride; and the habit of looking at the existing state of improvement, will shortly involve in oblivion those days of toilsome suffering and inconvenience, which every middle aged native of the valley of the Ohio remembers, and has felt.

It is little more than thirty years, since the then frontier village; of Fort-Pitt (now Pittsburg) was subject to frequent alarms from the appearance of the red man on the Western shore of one of her rivers; it is little more than thirty years, since one of the first necessaries of life, was packed from the eastern side of the mountains, by the individuals themselves, who consumed it; it is little more than thirty years since the canoe of the savage gave place to the scarcely less inconvenient flat boat of the emigrant, which in its turn was to yield to the open keel of the trader, and the flat roofed ark of the Mississippi. What is the revolution which has occurred? Pittsburg has earned the name of the American Birmingham; Fort Washington, under the name of Cincinnati, has become one of the most beautiful and attractive cities of the Union, and the Ohio river, which within the memory of many of us, presented a navigation as dangerous as that of the mysterious Niger, is now visited for its picturesque charms, by travellers from the Rhine, the Rhone, and the Danube.

Of all the various subjects of interesting speculation which have combined, in producing these almost incredible advancements in the West, the steam boat is, probably, the one of the greatest moment. A review of the rise and progress of this item in the catalogue of the causes of our prosperity may not be unimportant, and a statement of facts connected with it, will be likely to surprise ourselves not less than strangers.

The first boat built on the Western waters of which the writer of this article has any record, was the N. Orleans, built at Pittsburg, in 1811;—he has no account of more than 7 or 8 built previously to 1817; from that period they have been rapidly increasing in number, character, model and style of workmanship, until 1825, when two or three boats built about that period, were declared by common consent, to be the first in the world. Since that time we are informed that some of the New York and Chesapeake boats rival and probably surpass us in richness and beauty of internal decoration. As late as 1816 the practicability of navigating the Ohio with steam boats was esteemed doubtful; none but the most sanguine augured favorably. The writer of this well remembers that in 1816, observing in company with a number of gentlemen, the long struggles of a stern wheel boat to ascend horse tail ripple, (5 miles below Pittsburg) it was the unanimous opinion that "such a contrivance" might conquer the difficulties of the Mississippi, as high as Natchez, but that we of the Ohio must wait for some more happy "century of inventions." In 1817 the bold and enterprising Capt. Shreve, (whose late discovery of a mode for destroying snags and improving western navigation, entitles him to the reputation of a public benefactor) made a trip from New Orleans to Louisville in 25 days. The event was celebrated by rejoicing and by a public dinner to the daring individual who had achieved the miracle. Previous to that period, the ordinary passage by barges, propelled by oars and sails, was three months. A revolution in Western commerce was at once effected. Every article of merchandise began to ascend the Mississippi, until we have seen a package delivered at the wharf of Cincinnati, from Philadelphia, *via* New Orleans, at one cent per lb. From the period of Captain Shreve's celebrated voyage till 1827, the time necessary for the trip, has been gradually diminishing: during that year the Tecumteh entered the port of Louisville from New Orleans in 8 days and 2 hours from port to port!

Since the introduction of the steam boat, the memorandum before me, furnishes a list of 323, whose united tonnage may be estimated at about 56,000 tons, employed during this period, on the waters of the Mississippi and Ohio. The largest size rated about 500 tons, but a large majority of them are under 250 tons.

The average first cost of a steam boat is estimated at one hundred dollars per ton; the repairs made during the existence of the boat amount to one half the first cost. The average duration of a boat has hitherto been about four years; of those built of locust, lately, the period will probably be two years longer. The amount of expenditures in this branch of business on the Western waters, then, for the last ten years will in some measure be shewn by the following calculation.

56,000 tons, costing 100 dollars per ton, amount to	$5,600,000
Repairs at the end of the present *generation* of boats say three years hence	2,800,000
	$1,800,000
Amount of money expended in building and repairing in ten years	8,400,000

The annual expenditures of steam boats is very difficult to be arrived at; the importance of this expenditure however, to the towns on our rivers, and to the whole extent of country running along their shores may be estimated from the following calculation of the item of fuel alone, for one year. Take the present year of 1829. We have now in commission above 200 boats, the average tonnage of which may be stated at 175 tons; this will give the whole amount now employed, 35,000 tons.

It is calculated that the business season of each year lasts eight months; deduct one fourth for the time lost in port, and we have 6 months or 180 days, of running time. Each boat is presumed to consume one cord of wood, for every 12 tons, every 24 hours.

The 35,000 tons then consume per day	2,917 cords
Or during the six months	525,060 cords

The price of wood varies from one dollar and a half to five dollars per cord; a fair average would place it about 2,25 per cord. This makes the expenditure for fuel alone on the banks of our rivers, one million, one hundred and eighty-one thousand three hundred and eighty-five dollars every year. The other expenditures while running are calculated by the most experienced and intelligent owners to be equal to one million, three hundred thousand dollars, which gives the total expenditure per annum (1829) at $2,481,385

This calculation and estimate, then, which are both made lower than the facts justify, present these results—first

The amount of first cost of steam boats since 1817,	5,600,000
Repairs on the same up to 1832,*	2,800,000
Total amount of expenditure of capital produced by the introduction of steam boats,	8,400,000
Amount of expenditure in fuel and other expenses, exclusive of repairs per season of eight months,	$2,481,385

We cannot better illustrate the magnitude of the change in every thing connected with Western commerce, and navigation, than by contrasting the foregoing statement, with the situation of things at the time of the adoption of steam transportation, say in 1817. About 20 barges, averaging 100 tons each, comprised the whole of the commercial facilities for transporting merchandise from New Orleans to the "upper country;" each of these performed one trip down and up again to Louisville and Cincinnati within the year. The number of keel boats employed on the upper Ohio cannot be ascertained, but it is presumed that 150 is a sufficiently large calculation to embrace the whole number. These averaged 30 tons each, and employed one month to make the voyage from Louisville to Pittsburg, while the more noble and dignified barge of the Mississippi made her trip in the space of 100 days, if no extraordinary accident happened to check her progress. Not a dollar was expended for wood in a space of 2000 miles, and the squatter on the banks of the Ohio thought himself lucky if the reckless boatman would give the smallest trifle for the eggs and chickens which formed almost the only saleable articles on a soil whose only fault is its too great fertility. Such was the case 12 years since. The Mississippi boats now make five trips within the year, and are enabled, if necessary, in that period to afford to that trade 135,000 tons. Eight or nine days are sufficient on the upper Ohio, to perform the trip from Louisville to Pittsburg and back. In short, if the steam boat has not realized the hyperpole of the poet in "annihilating time and space," it has produced results scarcely surpassed by the introduction of the art of printing. N.

LADIES' DEPARTMENT.

(From the Journal of Health.)

DOMESTIC DOCTORING OF CHILDREN.

"Were a law to be passed and strictly enforced," observes a judicious writer, "which should absolutely prohibit the administration of medicine to children, excepting by the advice of an experienced physician, I am convinced, it would save annually the health and lives of thousands."

There does certainly exist with many parents, a strange propensity to substitute the drugs of the apothecary for judicious nursing; or rather to supply, by the plentiful administration of the former, the errors and omissions in the latter.

To hear some mothers and nurses talk, and to observe their practice, one would imagine that the life and comfort of almost every infant depended in a great measure upon its being constantly supplied with medicine:—that it could not enjoy an hour's sleep were it not for an opiate—that it would be oppressed with wind, or tormented into convulsions by griping pains did it not receive its accustomed carminative or anodyne; and that, in fact, its stomach would be overloaded with foulness, and its whole system sink into irremediable weakness, were not the attentive nurse to prevent all this mischief by an occasional emetic and the like, or by a timely resort to some strength dispensing cordial.

By this dependence upon medicine, for what medicine is not calculated to effect, the evil produced by one species of error is aggravated by another, of an equally dangerous character. The health of the child invariably suffers, and its course to the grave is often gradually accelerated.

Were parents, instead of attempting to allay by medicine every trifling complaint of childhood, to look upon the latter as an invariable indication of some defect in nursing, and to have recourse at once to the necessary change of food, air, exercise or clothing, they would, in the great majority of instances, effectually guard against the occurrence of actual disease, while they added to the comfort, augmented the strength, and prolonged the life of their offspring.

But if the administration of drugs, when pain and uneasiness are actually present, be productive of injury, what shall we say to that most absurd and pernicious of customs, the giving to children in perfect health, medicine, under the silly pretence of sweetening their blood and thus guarding against the approach of disease. This custom, it is true, was far more prevalent formerly than at present. But even now, in the calendars of certain mothers and nurses, the spring and fall are marked as seasons consecrated to physic. At these periods of the year, no matter how perfect the health of their children, they believe it their bounden duty, to force upon them some innocent medicine, as they term it, but which is often of the most active character, to cleanse their blood, and to insure their continuance in health.

It may perhaps be in vain to urge upon such individuals that medicine is not adapted to the preservation of health, but only for the removal of disease;—that when the latter is not already present, every drug, however mild may be its operation, throws the stomach into immediate disorder, weakens its digestive powers, vitiates the juices designed for the solution of the food, and thus impedes the growth and impairs the strength and vigour of the whole system. Under this plan of preventing disease, children are actually made sick for fear they should become so, and their constitutions are enfeebled by the perverse means employed to strengthen them.

It has been well observed, that art opens all her resources in vain; nor can the greatest efforts of human ingenuity make amends for the want of pure air, cleanliness, healthy breast-milk or wholesome food, and proper exercise. The neglect of any of these essential points is attended with irreparable mischief; while, on the contrary, a due attention to them will in a majority of instances, preclude the necessity of any medical aid.

We trust we shall not be understood, from the foregoing remarks, as inculcating any neglect of proper medical treatment in the diseases of children. On the contrary we insist that, when disease is discovered to be actually present, recourse should be had, without a moment's delay, to the advice of a physician. All we desire is, to point out the necessity of proper regimen and diet, for the preservation of the complaints of childhood, and as a means of removing those immediate effects of bad nursing, which are so frequently converted into serious and often incurable maladies by "domestic doctoring."

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* Allowing the present amount of tonnage, 35,000 tons, to be the average amount to be employed for the next eight years, and allowing the generation of a boat to be four years, boats to the amount of 70,000 tons, including those of this year, must be built during this time; first cost would be 7,000,000, and repairs 3,500,000 dollars! The greatest part if not the whole of this last item might be secured to Cincinnati by the creation of dry docks, and other conveniences as now contemplated.

Choice of occupation.—It is a very common error with parents, in determining upon the future occupations of their children, to fix upon a profession, or some sedentary employment, for those of a weakly or delicate constitution; while to the robust and vigorous, is assigned a more active and laborious occupation, demanding considerable bodily exertion, and repeated exposure to the open air. As a general rule, the very opposite of this course should be pursued: the robust being the best able to bear up against the pernicious effects of that confinement and inactivity, to which the enfeebled constitution will very speedily fall a prey; while the latter will be materially benefited by the very exertion and exposure to which it is supposed to be unadapted.

When we examine the individuals who compose the various trades and occupations, and find certain classes to present, very commonly, a pale, meagre, and sickly aspect, while others are replete with health, vigor, and strength; we are not to suppose that because the pursuits of the one demand but little, and those of the other considerable bodily strength, the first are best adapted to the weakly, and the latter to the strong: we are rather to ascribe this very difference in their appearance, to the influence their several occupations exert upon the health of the system.

Let the most healthy and vigorous individuals exchange his laborious occupation in the open air, for one which requires confinement within doors, and but little exercise, and his florid complexion, well developed muscles, and uninterrupted health, will very speedily give place to paleness, more or less emaciation, and debility, and occasionally to actual disease of the stomach or lungs. On the other hand, the very reverse effects will be produced, by the sedentary exchanging, before it is too late, their confinement and inactivity, for some active employment in the open air. These are important considerations, an attention to which, in the choice of a profession, would be the means of saving not a little suffering; in many instances, of prolonging life.

MISCELLANEOUS.

UTILITY OF INSECTS.

The honey of the bee, the dye of the cochineal, and the web of the silk worm, the advantages of which are obvious, may well be balanced against the destructive propensities of insects which are offensive to man. But a philosophical study of natural history will teach us, that the direct benefits which insects confer upon us are even less important than their general uses in maintaining the economy of the world. The mischiefs resulting to us from the rapid increase and activity of insects, are merely results of the very principle by which they confer upon us numberless indirect advantages. Forests are swept away by minute flies: but the same agencies relieve us from that extreme abundance of vegetable matter, which would render the earth uninhabitable, were this excess not periodically destroyed. In hot countries, the great business of removing corrupt animal matter, which the vulture and hyena imperfectly perform, is effected with certainty and speed by the myriads of insects that spring from the eggs deposited in every carcass by some fly seeking therein the means of life for her progeny. Destruction and re-production, the great laws of nature, are carried on very greatly through the instrumentality of insects; and the same principle regulates even the increase of particular species of insects themselves. When aphides are so abundant that we know not how to escape their ravages, flocks of lady birds instantly hover over our fields and gardens to destroy them.—*Library of Entertaining Knowledge; Insect Architecture.*

(From the American Turf Register and Sporting Magazine, No. 4.)

NATURAL HISTORY.

The elegant animal, the natural history of which we select for our present number, is classed by Zoologists in the following manner:

Class. Mammalia, &c.

Order. Ruminantia, two toes and two hoofs on each foot, for the most part no upper cutting teeth; grinders with a flat crown; four distinct stomachs; articulations of the jaw loose, and admitting a lateral motion; upper lip more or less cleft; horns or antlers, sometimes in both sexes and sometimes only in the males; no clavicles; teats inguinal; endowed with the genuine faculty of rumination.

Genus, Cervus, Lin. &c.—The head of the male-only armed with solid and desiduous antlers; no cutting teeth in the upper jaw; eight in the lower; a lachrymal vessel before and under each eye, no gall bladders; hair smooth; tail short.

There are at least sixteen species belonging to this genus; we shall more particularly describe the

COMMON DEER. (*C. Virginianus.*)

This is the smallest of the American species, and is found throughout this continent, between Canada in the north, and the banks of the Orinoco, in South America. This animal resembles the fallow deer, but is taller, has a longer tail, and is of a lighter colour; the horns are more slender, with numerous branches on the inside, and has no brow antlers. The general colour is a light cinereous brown, the head of a deeper cast, and the belly, sides, shoulders, and thighs whitish, mottled with brown; the tail, which is about ten inches long, is dusky above, and white below.

The female has commonly one or two, and sometimes three fawns, which are of a light cinnamon colour, spotted with white. While the fawns are still young, or from May until July, the doe very carefully conceals her offspring while she goes to feed; and this act of maternal fondness is not only done in a state of nature, but even when the common deer has been captive for some time, and bred in parks. The hunters, however, turn this fondness to their account, by imitating the cry of the fawn, either by the voice alone, or by a sort of pipe or reed producing a sound which closely resembles the bleating of the animal. The parent soon relinquishes all fears for her own safety, in her desire to assist her offspring, and following the sound, approaches the ambush of the hunter, where a deadly shot insures her immediate destruction. When a doe is killed in company with her fawn, or the mother has been removed as above mentioned, the little animal is at once tamed, or exhibits no apprehension at the approach of man, but follows his captor with the most confiding simplicity, and soon becomes so attached to his feeder, as to attend his steps at all times, and obey his voice. The following is an interesting anecdote of a doe and her fawn, as related to Capt. Lyon, by Capt. Parry. The latter had pursued them across a small inlet; the mother, finding her young one could not swim so fast as herself, was observed to stop repeatedly, so as to allow the fawn to come up with her, and having landed first, stood watching it with trembling anxiety as the boat chased it to the shore. She was repeatedly fired at, but remained immovable, until her offspring landed in safety, when they both cantered ought of sight.

In the latter part of the summer the fawn loses the white spots, which we stated it above to have, and in the winter the hair grows longer and grayish. The animal is then said by the hunters to be *in the gray.* To this coat one of a reddish colour succeeds, about the end of May and beginning of June; the deer is then said to be *in the red.* Towards the end of August, the old bucks begin to change to the dark bluish colour; the doe begins this change a week or two later, when they are said to be *in the blue.* This coat gradually lengthens until it finally returns to the gray. The skin is said to be toughest in the red, thickest in the blue, and thinnest in the gray; the blue skin is most valuable.

In the month of January the males cast their horns: the new horns soon after commence their growth. They continue in the velvet until the end of September or beginning of October, so as to be in full condition for battle during their season of love and war. These horns are not very large, but are curved forwards in a peculiar manner. They have an antler placed high up on the inside of each shaft, which presents downwards, and two or three others on the posterior surface, turning backwards. In the fifth year, the horn consists of two cylindrical, whitish, and moderately smooth shafts, separating at first slightly outwards and backwards, and then strongly curving forwards and downwards. From the second to the fifth year, the variations of the horns consist in their gradual advance from single, slightly curved shoots, to three and four antlers. The annual reproduction of these appendages after maturity, constitutes, in many points of view, one of the most remarkable phenomenon of animal physiology. First, it affords a most striking proof of the power of the nutritive process, and of the rapid growth which depends on it in warm blooded animals; secondly, it exhibits a singular instance of a limited duration of life in a part of the system, entirely independent of the life of the whole. Thirdly, it manifests a change of calibre in particular vessels; for the branches of the external carotids, which supply the horn with nourishment, are remarkably dilated during its growth, and recover their former area when that process has ceased. Fourthly, it bespeaks a peculiar sympathy between the growth of the horns and the generative functions, because castration, or any essential injury to the organs of generation, impedes the increase, alters the form, or interrupts the renewal of the antlers.

Both bucks and does herd from September to March, after which the does secrete themselves to bring forth, and are found with dificulty. From this time the bucks keep separate till the rutting season in September following. The deer begin to feed about twilight, and sometimes in the day time, but then only in the rainy season, otherwise they rarely venture to quit their haunts. These animals are very restless and always in motion. Like the rest of the cloven-footed quadrupeds of our country, they are very fond of salt, and resort eagerly to the places impregnated with it; they are also always seen in great numbers licking the earth in the spots where the ground has been torn by torrents or other accidents. Such spots are called by our hunters licking places, and there they are sure to find plenty of game; for, notwithstanding they are so often disturbed, they soon return again in droves to their favourite haunts.

The common deer is possessed of keen senses, particularly of hearing and smelling; the sight, though good, does not appear to equal in power the senses just named, upon which the safety of the animal most immediately depends.

It is, therefore, necessary for the hunter to approach the deer against the wind, otherwise he is discovered by the scent, at a great distance, and his objects are entirely frustrated. The slightest noise excites the attention of the deer, and his fears appear to be more readily awakened by this cause than any other; while, on the contrary, the sight of unaccustomed objects seem rather to arouse curiosity than to produce terror, as the animal will frequently approach, or stand gazing intently, until the hunter steals close enough to fire at him. The watchfulness of the leader of the herd, has led the hunters to form an opinion, to which they pertinaciously adhere, that the deer, when they visit a *salt lick*, always post one of their number as a sentinel, who is to give the alarm in case of the approach of an enemy.

When startled from a resting place without being much alarmed, the deer moves at first in a singular and amusing manner. With an apparent awkwardness, two or three springs are made, from which the animal alights on three feet, drawing up and extending the limbs in a stiff and peculiar manner. As the tail is erected, this alternate resting upon the feet of opposite sides,—causes the tail to describe a semicircle from side to side; a few high bounds are next made forwards, as if with a view to prepare for subsequent exertion, and then, if the cause of alarm be continued, he exerts his strength, and dashes off in his swiftest career.

Although the deer is generally a very shy and timid animal, the males are very much disposed to war with each other, during the season of their sexual passion, and they are almost inclined to fight when wounded or brought to bay. At this time they fight with their fore feet as well as their horns, and inflict severe wounds by leaping forward and striking with the edges of their hoofs held together. If a hunter falls on the ground in attempting to close in and despatch a wounded deer with his knife, he is in great danger of being killed by such blows as we have described. The combats in which the males engage with each other, are frequently destructive of the lives of both, in a way that would not readily be anticipated. In assaulting each other furiously, their horns come into contact, and being elastic, they yield mutually to the shock, so that the horns of one animal pass within those of the other, and thus secure them, front to front, in such a manner that neither can escape, and they torment themselves in fruitless struggles, until worn down by hunger they perish, or become the prey of wolves or other animals. Heads of deer that have thus perished are frequently found, and there is scarcely a museum in this country which has not one or more specimens. The following instance is given by Say, in Major Long's Expedition to the Rocky Mountains.

"As the party were descending a ridge" he says, "their attention was called to an unusual noise proceeding from a copse of low bushes, a few rods from the path. On arriving at the spot they found two buck deer, their horns fast interlocked with each other, and both much spent with fatigue, one in particular being so much exhausted as to be unable to stand. Perceiving that it would be impossible that they should extricate themselves, and must either linger in their present situations, or die of hunger, or be destroyed by the wolves, they despatched them with their knives, after having made an unavailing attempt to disentangle them. Beyond doubt many of these animals must annually thus perish."

The total length of the common deer, exclusive of the hair at the tip of the tail, is five feet four or five inches. The tail, exclusive of the hair, is nine inches and a half long. Lewis and Clarke, however, state that they saw common deer with tails seventeen inches in length. The hind foot, from the tip of the *os calcis* to the extremity of the toe, is sixteen inches and a quarter. The fore arm eleven inches and seven eighths.

The flesh of the common deer is justly esteemed an excellent article of food, when killed in the proper season, which is the autumn. The Indians and hunters, whose necessities do not permit them to choose, feed upon these deer at all seasons. The markets of our large cities are supplied very abundantly with venison from this species every winter, and at so cheap a rate as to bring it within the means of almost every housekeeper. The skins form an extensive branch of traffic between the Indians and the civilized inhabitants of North America. Mr. Pennant says that, so long ago as the year 1764, no less than 25,027 skins were imported into England, from New York and Pennsylvania.

Dr. Godman, to whose Natural History of America we are indebted for the greater number of the facts relating to this animal, which we have stated above, further informs us, that there are five distinct species of deer, now inhabiting this country. They will be found enumerated in the subjoined list, with proper reference to the authors who have described them.

The species belonging to the genus *cervus* are as follows:

1. The stag, *cervus elaphus*, Lin. Rufous brown; horns branched, round and recurved. A native of almost all the temperate parts of Europe and Asia.
2. The roe, *C. capreolus*, Lin. Body brown-tawny; horns branched, round, erect, with bifid summits. This species inhabits most parts of Europe, as far as Norway; it also occurs in some districts of Asia, but has not been observed in Africa.
3. The rein deer, *C. Tarandus*, Lin. Horns branched, recurved, compressed; extremities palmated. It is found in great abundance in the northern parts of both continents. Godman's Am. Nat. Hist. vol. 2, p. 283.
4. The moose, *C. alces*, Lin. Horns palmated; throat carunculated. Inhabits the northern parts of both continents. Godman's Am. Nat. Hist. vol. 2, page 274.
5. The elk, *C. Canadensis*, Briss. The horns rise loftily from the front, with numerous sharp pointed branches, which are curved forwards, and the head is sustained upon a neck at once slender, vigorous and graceful. The elk is still occasionally found in the remote and thinly settled parts of Pennsylvania. Godman's Am. Nat. Hist. vol. 2, page 294.
6. The black-tail deer, *C. macrotis*, Say. The horns slightly grooved and tuberculated at the base, having a small branch near thereto, resembling in situation and direction, the first branch on the horn of the common deer. Godman's Am. Nat. Hist. vol. 2, page 304.
7. The common deer, *C. virginianus*. Horns slender, round, branched, bending forward, and slightly palmated at top, &c. Godman's Am. Nat. Hist. vol. 2, page 306.
8. The crowned stag, *C. coronatus*, Geoff. Horns like those of the elk, but much smaller, and the palmations much longer, and more indented in proportion.
9. The fallow deer, *C. dama*, Lin. Horns branched, recurved, compressed, and palmated at top.
10. The rib faced deer, *C. muntjac*, Lin. Horns rising from a cylindrical hairy base; three-forked, and the upper fork hooked.
11. The axis, or gangetic stag, *C. axis*, Lin. Horns round, slender, erect, with bifid or trifid horns.
12. The porcine deer, *C. porcinus*, Lin. With slender trifid horns.
13. The Mexican roe, *C. mexicanus*. Red, with rough trifid horns.
14. The tailless roe, *C. pygargus*, Lin. Tailless; with trifid horns.
15. The gray deer, *C. guinensis*, Lin. Azzara, &c.
16. The rusa deer, *C. equinus*, Cuvier. This species is distinguished from the rest of the genus, by their horns being provided with a single antler at the base, and with a lateral snag which forms a kind of bifurcation towards the extremity. It is a native of India and of the Indian islands.

CARD MAKING MACHINE.

The invention of Mr. Amos Whittemore, of West Cambridge, formed a new era in the mechanical ingenuity of this country, and the real importance of the machine can hardly be estimated. As a piece of mechanism, it has never been excelled; strips of smooth leather and rolls of wire are placed on one end of the apparatus, and the intricate process of cutting the leather to the exact size, and pricking the holes is performed, while at the same moment the wire is cut, bent, and the teeth are inserted in their respective places; the card then comes out, perfectly formed, and completely finished for immediate use, occupying but a few moments in the operation.

We heard the old gentleman a few months before his death, while confined to his house by disease, relate the particulars of the origin and completion of his design, with an enthusiasm that would awaken youthful ambition to exert itself in something more than a limited sphere. He mentioned that three days as well as nights, were constantly devoted to the making and completion of his model, all of which was done in his own house, and the fear of losing sight of his plan, prevented every thing like repose, until it was completed; the original he preserved and exhibited to his friends in his last days, as an evidence of industry, to stimulate the young to perseverance and exertion. For a number of years previous to his decease, he was feeble and much debilitated, and the great mental efforts and intense and close application he made in bringing the machine to perfection, impaired his constitution, and produced a premature death. The proceeds of his ingenuity produced him something, but his wealth was far from being extensive, and little was left as the result of his arduous toil and intense mechanical research.—*Berkshire American.*

The Mail.—The transportation of the Mail in coaches, at this time, amounts to 6,507,818 miles in one year; and on the first of January next it will be increased to 6,785,810 miles. The whole yearly transportation of the mail, in coaches, sulkies, and on horseback, amounts to about 13,700,000 miles.

(For the American Farmer.)

THE FARMER'S WINTER SONG.

There is a time, the wise man saith,
  For all things to be done;—
To plough, to sow, to reap,—as roll
  Successive seasons on;—
For pleasure, too,—in flowery spring,
  In fragrant summer's vales;
In fruitful autumn's yellow fields;
  In winter's evening tales.

And though the fields are bleak and drear,
  The forest's verdure gone;
And all is wither'd, cold and sere,
  In garden, field, and lawn;
There's something left, and much, to cheer,
  And charm the farmer's heart;
For wintry winds to harvest hope,
  Great influence impart.

And while he views the drifting snow,
  And treads the frozen earth;
He hath at home his garners full,
  And social blazing hearth;—
And thus he sings, what e'er pervade
  The earth or sky, at morn,—
"Of wintry winds and summer suns,
  The farmer's hope is born."

S.

FREEZING QUICKSILVER.

It is stated by Professor Hansteen, that, during his tour in Siberia, in the month of January last, finding the mercury in two thermometers becoming stiff, he determined to expose a quantity of it to the full effect of the air. Accordingly, at night, he poured three lbs. into a basin, and set it out. The next morning, before half past seven o'clock, it was frozen into a compact hard mass, which he could not loosen with his knife from the bottom of the basin! He cut it like lead; and, at first, as the knife came out of a warm room, the mercury was still rather fluid where it was cut!

It is certainly no slight testimony to the enthusiasm with which, in these days, scientific results are pursued, to state, that in an atmosphere where mercury was thus frozen solid, the Professor daily passed the hour after sunrise, in making observations and experiments in the open air. All the brass screws, however, of his instruments were covered with leather, as the mere touch of the finger to the naked metal scorched like a red hot iron, and invariably left a blister behind.—*N. Y. American.*

The Poison Aarows of Africa.

Whatever is calculated to show the customs of distant countries, their manners, their utensils, or their arms, must be a subject of interest. The last travels of Major Denham, and Capt. Clapperton, besides their discoveries of countries in Central Africa, before unknown, have thrown a light on many subjects, of which, formerly, we had but an obscure knowledge. Amongst these the poison arrow stands prominent. By the accounts of Maj. Denham, it is a weapon, the slightest scratch of which is death; nothing can exceed it, excepting the bite of a rattlesnake. Major Denham accompanied an expedition of horse and foot armed with musketry, against the Feletahs, the bravest of the African nations. The Feletahs are not of the negro race, but are of a bronze color, and evidently of the Arab descent. The combatants met, and the contest was very long doubtful; the army of the assailants, principally on account of the cowardice of the Bordou horse, were defeated, and the poisoned arrows of the Feletahs made great execution. In the flight, Major Denham was frequently in the most critical danger, hundreds of these arrows falling around him. The wounded horses were seen after an hour to drop dead; and the soldiers died, swelled, and the blood issuing at every pore. Boo Khaloom, a Merchant General, under whose escort Don Gudney and his party had crossed the Desert, fell from his horse and expired, by a slight wound in the foot by one of those arrows.

SINGULAR PHENOMENON.

Near the village of Kilkee, on the western coast of Ireland, is a natural curiosity which I do not recollect to have seen any where mentioned by travellers. It is called the "Puffing Hole," and consists of a cavern at the base of the cliff, the mouth of which opens on the Atlantic, and which after burrowing to a considerable distance, runs up to the surface in a narrow neck, resembling at the top the mouth of a well, when the tremendous sea from abroad rolls in, it is as though the great body of water was forced into an inverted funnel, its impetus of course increasing as it ascends through the narrow neck until it reaches the upper opening or "Puffing Hole," through which it jets to an astonishing height into the air, sometimes several hundred feet, and then falls in rain on the mossy fields behind. Nothing can be more stupendous than the sight of this gigantic jet d'eau when the strong westerly wind sets in with force so as to completely block up the mouth of the cavern.

INSTINCT.

Blumenbach asserts the absolute blindness of instinct; in short, instinct in all its usual senses. Birds of passage, kept in cages, with plenty of food, and in warm chambers, yet at the given season of migration, manifest the greatest restlessness and attempt to escape. Canary birds, having the materials given them, build exactly like the wild one, in the Canary Islands, although reared under other birds. Condillac wished with Darwin, to take away all the wonderful from the constructiveness of birds, and refer it, as men, to practice. Nonsense! There are creatures, the silkworm, for instance, which work once, and but once, and which could have had no instruction.

RECIPES.

TO PREPARE CAMPHOR WITHOUT THE USE OF ALCOHOL.

Take two drachms of gum camphor, and the same quantity of quick lime; rub them well together; then, putting this mixed powder into an earthen vessel, pour upon it six ounces of lime water.—Let it stand about thirty minutes for the grosser particles to settle. Then pour off the clear liquid into an earthen vessel, and you will have a strong solution of camphor. You will not find that *pungency* in the smell, which you would if it were dissolved in *alcohol*, for the plain reason, that *pure water* has not the pungent odor that *spirituous liquors* have.

I know of no case where camphor is used in our families, where the lime connected with it can be of any injury.

In fact, in most if not all cases, it will be a decided benefit.

This mode of dissolving gum camphor has one decided advantage over that in common use. If camphor, dissolved in alcoholic liquors be mixed with water for use, as is frequently necessary, the gum immediately separates and sinks to the bottom, an inconvenience which is avoided by this method.

In point of *economy*, likewise, the method above proposed has a decided advantage.

Hervey N. Preston, M. D.

Newton, Mass. Nov. 9, 1829.

BALSAM FOR CHAPPED LIPS.

Take two tea-spoonfuls of clarified honey, and a few drops of lavender-water, or any other agreeable perfume.

CHAPPED HANDS.

To have chapped hands is always an unpleasant, and not unfrequently a painful complaint, at this season of the year.

The following is the best remedy with which we are acquainted:—wash your hands with castile soap; apply it with a flannel, and if necessary, use a brush, in order to get the dirt from under and around the nails and fingers, till they are perfectly clean. The water in winter, if convenient, may be warmed; then rinse them in a little clean water, and while they are wet rub them well all over with about half a tea spoonful of good honey; then dry them well with a clean towel. This should be done once or twice a day, and always before going to bed.

FOR A SORE THROAT.

Take a glass of sweet oil and a half a glass of spirits of turpentine, mix them together, and rub the throat externally, wearing flannel round it at the same time. It proves most effectual when applied early.

MEDICINE FOR A COUGH.

The following medicine for a cough has performed such extraordinary cures, in private practice, that the possessor is induced to publish it for the benefit of society:—Take six ounces of Italian liquorice (that stamped Solazzi is by far the best) cut into small pieces, and put into an earthern jar, with a quarter of a pint of the best white wine vinegar, simmer together until the liquorice is dissolved, then add two ounces of oil of almonds, and half an ounce of tincture of opium, stir the whole well together, and it is fit for use. Take two tea-spoonfuls when going to bed, and the same quantity whenever the cough is troublesome in the day time.

THE FARMER.

BALTIMORE, FRIDAY, JANUARY 15, 1830.

New Planting Machine.

Messrs. A. H. and L. Robbins of the western part of New York, have invented a machine for planting corn, beans, peas, mangel wortzel, turnips, &c. which is said by respectable gentlemen who have seen it in operation to be admirably calculated for the purpose. Twelve gentlemen of the town of Denmark, N. Y. testify that they have examined the machine, have seen it used, observed the crops grown from the seed planted by it, and the results have in every instance answered their expectations, and they have no hesitation in saying that the machine is simple in its construction, and that there is no difficulty in any man's using it with precision after one hour's practice. When the ground is well prepared, one man will plant from six to ten acres a day—the rows being four feet apart one way, and eighteen inches the other. "The machine," these gentlemen continue, "will drop any given number of seeds at a time, and at any required distance, with the most perfect precision."

Richard Peters, Esq. of Philadelphia, speaks of the machine in high terms, and has furnished the following report of a committee of the Pennsylvania Agricultural Society, to which the subject was referred last spring.—

Pennsylvania Agricultural Society.

The committee appointed to examine A. H. and L. Robbins's Planting Machine, report, that having attended to this duty, they are of opinion, that this implement will be found an useful auxiliary upon every farm, where corn, beets, turnips, &c. are cultivated.

Jno. G. Watmough.
Reuben Haines.
M. R. Moores.

April 10, 1829.

The writer of the following letter, Mr. Peters assures us, is a gentleman of the highest respectability and a practical farmer:

Richard Peters, Esq.

Dear Sir,—With much pleasure I have it in my power to express, that the operation of the Corn-planting Machine, which Mr. Brayton furnished, greatly exceeds my expectation.

Three acres planted by it have come up with most promising appearances, notwithstanding the ground was not in as good order as it ought to have been. The field had been some years in grass, the sod was ploughed this spring, twice harrowed, then rolled, and heavily limed, (say 60 bushels to the acre) a rain immediately following made it pretty solid, and though afterwards twice harrowed, it was too stiff for the best working of the machine; as it was, one man performed in like time as much as four men and a horse did in the old way the preceding week in the same field. If my declaration can be of any service to Mr. Brayton, or the patentees, I shall be happy to have contributed to reward the inventor of so useful an instrument.

Most respectfully, your humble servant,

James Hunter.

Woodstock, May 29th, 1829.

After such high testimony in its favor it will scarcely be necessary for us to go further than to inform the public where the machines may be seen and obtained. Mr. Ashard the agent of the patentees, is now on a tour to the south; and Jonathan S. Eastman, of Baltimore, has been appointed agent for making and selling them, of whom any further information may be obtained. The machines, we believe cost about $10 or $12.

Culture of Silk.

A correspondent has sent us the following extract from the proceedings of the Legislature of Tennessee, and informs us that a bill had been reported in conformity to the prayer of the petitioner. It is a good suggestion, and we hope the legislature will adopt it. The legislatures of other states might, by expending a few hundred dollars in this way, do a great deal of good, both to the common-wealth and the indigent poor.—

Legislature of Tennessee, House of Representatives, Wednesday, 25th November 1829.

Mr. Dunlap, of Knox, presented a petition of Samuel Martin, of Campbell's station, Knox county, praying an appropriation of ten dollars to each female school in this state for the purchase of silk worm eggs, and planting 100 mulberry trees at each of said schools, and that $100, be appropriated as a premium to the school which produces the most and best silk.

Latest Foreign News.

English papers to the 1st and French to the 2nd December, have been received since our last; but except the accounts of the state of the markets, we do not find a single item of sufficient interest for translation to our columns.

London, Dec. 1, 1829.

Cotton.—The increasing demand for cotton in the Liverpool market has had a corresponding influence here. Bahias, Maranhams and Egyptian are from ⅛ to ¼ higher than last week, and more business doing.

Tobacco.—In the month ending to-day there has been a good demand for home consumption, but leafy and stemmed have given way ½d per lb. As good and fine sorts are scarce they have maintained their value. There is a great anxiety on the part of holders to make sales. For Inland, few purchases have been made, the prices asked being too high. In stalks little has been done, and prices are lower. Several parcels are in market at £10 per cwt.

Sales of Cotton at the Havre Exchange, 1st Dec.—300 bales Louisiana, at various prices; 449 do. do. 1f. a 1f. 4c.; 141 do. do. 97½c.; 27 do. do. 1f. 4c.; 57 do. Georgia do. 86½c; 161 do. do. 88c.; 42 do. do. 87½.; 20 do. do. 84½c; 27 do. do. 90c.; 43 do. do. new, 96c.; 100 do Tennessee 86½c.; 31 do. 97½c.

Bordeaux, 27th Nov.

Cotton.—The rate of 108f. has been maintained for Gandaloupe, by the sale of 17 bales. We were not able to learn positively the price obtained for a lot of Louisiana—it is said to have brought 93c.

FINE LUCERNE SEED.

1000 lbs. finest quality Lucerne seed, for sale in quantities of 25 lbs. or upwards—price 25 cents per lb. where 100 lbs. or more are taken, and 30 cents per lb.; where a less quantity is wanted.

Also 500 lbs. fresh seed of American Yellow Locust, or Robinia Pseudaeacia, of the Long island variety, so valuable for timber, at $1 per lb.; or less, where 100 lbs. are taken.

A line, per mail, addressed to the subscriber will receive prompt attention. WILLIAM PRINCE,

Proprietor of the Linnæan Botanic Garden.

Prices Current in Boston, January 8.

Apples, best, bbl. 1.75 a 2.25. *Beans*, white, bushel 1.00 a 1.25. *Beef*, mess, bbl. 9.25 a 9.50; cargo No. 1, 7.75 a 8.00; No. 2, 6.75 a 7.00. *Butter*, inspected, No. 1, new, lb. .12 a .14. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.50 a 5.75; Genesee, 5.50 a 5.50; Rye, best, 3.62 a 3.87. *Grain*, Corn, bu. .62 a 63; Rye, .75 a .78; Barley .67; Oats .40 a .45. *Hogs'-Lard*, 1st sort, new, lb. .8 a 8.50. *Pork*, clear, bbl. 15 a 16; Navy, mess, 12.50 a ——; Cargo, No. 1. ——a 12.50. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool*, Merino, full blood, washed, .38 a 40; do. do. unwashed, .— a .25; do. three-fourths, washed, .30 *a* .35, do. half blood, .28 *a* .33; do. quarter, washed, .25 a .28; Native, washed .25 a .28; Pulled, Lambs', 1st sort, .37 a 38; do. 2d sort, .28 a .31; do. Spinning, 1st sort, 30 a .33.

Prices Current in New York, January 9.

Bees-wax, yellow .22 a 23. *Cotton*, New Orleans .10 a .12½; Upland, .9¼ a .10¾; Alabama, .9½ a 11½. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask – a 10.62½; clean —— *Flour*, N. York, bbl. 4.87½ a 5.00 Canal 5.37½ a 5.75; Balt. Howard st. 5.25 a 5.37; Richmond city mills, 5.25 a 5.37½ country, 5. a —— Alexand'a, 5.00 a 5.25; Fredericksburg 4.75 a——; Petersburg, 4.87½ a —— Rye Flour, —— a 3.50; Indian Meal, per bbl. 2.50 a ——; per hhd 13.00 a 13.25. *Grain*, Wheat, Genesee, 1.03 a 1.06; Vir. 80 a 90; Rye, North, 70 a 71; Corn, Yel. Nor. .52 a —; Barley, 68 a .70; Oats, South and North, .— a .—; Peas, white, dry, 7 bu.——; Beans, 7 bu. 7.00 a 9.00. *Provisions*, Beef, mess 8 a 8.50; prime 5.75 a 6.25; cargo 4.25 a 4.50; Butter, N. York, .12 a .15; shipping, .8 a 11; Lard, .5 a .6; Pork, mess 11.00 a 12½; prime 9.00 a 9.50; cargo—— a——; Hams, Va., per lb. .9 a .10; Northern .9 a .10. *Rice* 2.50 a 3. *Tobacco*, Virginia .4½ a .6 a 7. Kentucky, .4 a .6. a 7.

Prices Current in Philadelphia, January 11.

Bees-wax, yellow —. a .22; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10 a 10.50, prime 8 a 9.00, cargo 7; *Butter*, No 1, 8 a —, No. 2, 6. a—; *Cotton*, New Orleans .9½ a .13, Upland 10. a .11½, Tennessee 9½ a .11, Alabama 9½ a 11½; *Feathers*, South. .34 a .36, West. .32 a .32; *Flax* .7½ a .8. *Flour*, sup. 4.50; fine, 4.25 a —; Rye 3.37½ a 3.75; Corn meal, hds. 11.50 a ——, bls. —— a 2.06¼; *Flaxseed*, cask ——; bu. 1.18 a 1.20;——*Grain*, Wheat 85 a 92 Rye .50 a 52, Corn l. c. white, .33 a .35, l. c. yellow, .34 a .36, u. c. round, .38 a .42; Oats .25 a .30, Barley, Pa. .55 a .60; do. East. .70 a .71; black-eyed Peas .40 a .50. *Hams*, Jersey .8 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .5 a .6½; *Oil*, linseed, 63 a 65; *Pork*; mess, 11.25 a ——, prime 10.50 a 11; cargo 9.00 a 9.50, *Rice*, 2 50 a 3.25; *Tobacco*, Kentucky .5 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .18 a .22, half blood .26 a .—; three quarters blood .28 a .32, full blood 28 a .32; unwashed, generally 6 cents less, according to quality.

ALMANAC.

1830. JANUARY.	SUN. Rises.		SUN. Sets.		Length of days.		Moon. rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 16	7	14	4	46	9	32	11	50
Sunday,........ 17	7	14	4	46	9	32	morn.	
Monday,....... 18	7	13	4	47	9	34	0	48
Tuesday,...... 19	7	13	4	47	9	34	1	40
Wednesday,.. 20	7	12	4	48	9	36	2	41
Thursday,..... 21	7	11	4	49	9	38	3	35
Friday,......... 22	7	9	4	51	9	42	4	35

New Moon—24th 00h. 23m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—Flour and wheat have experienced a further decline, and are held now at our quotations, at which there is little demand, especially for flour. The wagon price of Howard street flour is $4.25. Beef is very dull, and it must be very prime that will command our highest rate. There has been a partial decline in Pork—family, from wagons now selling at $5. a 5.25.—Drove pork at quotations.

Tobacco.—Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12.00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week comprise 103 hogsheads Maryland, and 3 hogsheads Ohio.—Total 106 hhds.

Flour—best white wheat family, $6.00 *a* 6.50—super. Howard st. 4.37½ *a* 4.50, city mills, 4.00 *a* ;—Susquehanna, ——. Corn Meal, bbl. —— *a* 2.25—Grain, best red wheat, .— *a* .90; best white do. .80 *a* .85; ordinary to good, .70 *a*. .80—Corn, old white, .38 *a* —; yel. .38 *a* —; new .— *a* —Rye, .47 *a* 48: Oats, .— *a* .30 Beans, 90 *a* 1.00——Peas, .65 *a* –Cloverseed, 4.75 *a* 5.00 ——Timothy, 2.50——Orchard Grass, 2.00 ——Herd's, — *a* 1.50—Lucerne .37½ *a* .50 lb.—Barley, .50 *a* .55—Flaxseed, 1.10—Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12 —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .9½ *a* .9½—Geo. .8 *a* .10—Whiskey, hhds. 1st p. .22 *a* —; in bbls. .24 *a* 24½—Wool, common, unwashed, lb. .15 *a* .16—washed, 18 *a* .20—crossed, .20 *a* .22—three-quarter, .28 *a* .30—full do. .30 *a* .35, accord'g to qual.—Hemp, Russia, ton, $215 a 220; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6.12½ *a* 6.25; No. 2, 5.62½ *a* —No. 3, 3.50 *a* ——Bacon, hams, Balt. cured, .9 *a* .9½—Feathers, .31 *a* 33—Plaster Paris, cargo price per ton, 4.75, ground, 1.25 bbl.—Prime Beef on the hoof, 4.00 *a* 5.00 —Pork on the hoof, 4.50 *a* 4 75—Pine Wood, by the vessel load, 2.75 to 3.00;—Oak Wood, 3.25 to 3.50 Hickory, 5.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

(From the British Farmer's Magazine, for November 1829.)

On the Present State of some of the Improved Breeds of Cattle of this Kingdom.

Sir,—Resuming the subject on which I have so frequently addressed you, it affords me the highest satisfaction to be enabled to lay before you the substance of a letter written in consequence of the expression of my sentiments in the Farmer's Magazine. That satisfaction would, however, have been increased, had time permitted me to obtain the sanction of the highly respectable writer for the publication of his name; but his letter so fully bespeaks acute and diligent observation, and his deductions appear so just, that though the addition of his name would command the respect of your readers, it would in no degree confer weight on opinions evidently so correctly adopted. I have not the honour to be personally acquainted with the writer, his testimony is therefore so much the more impartial and gratifying.

Referring to my letter in your August Number, (published in No. 30, of this vol. of the American Farmer,) the gentleman above alluded to, thus proceeds:—"In that letter there are some remarks which not only coincide with my own opinion, but are altogether corroborated by the events of my short experience. Although I have only been a breeder of —— six years, I have for sixteen years been a watchful observer of cattle, of all breeds and descriptions, and I find that I have come to the same general conclusions as yourself, as to 'breeding in and in.' I am convinced it is a practice which will develope ruinous consequences the further it is carried. Some sheep breeders may triumph in the idea that the remark does not apply to sheep. I have seen a great many flocks, but *never saw one* in which some evil consequences of breeding in and in were not *distinctly* and *unequivocally* to be traced; and I never met a breeder of sheep, 'whose conscience lay in the right place,' *who did not confess it;* and I feel assured, that if Mr. Barford's sheep are as good as they were, still he has had casualties as well as other people, which casualties, I think, would be avoided by a judicious introduction of fresh blood. Besides, it stands to reason and common sense that the evil would not be so great, nor its effects so rapid, nor its consequences so fatal, where the numbers of which a flock consists is in itself a degree of preventive. But still it is an evil, which evil shews itself in some shape or other, at some time; and whenever it does, however late, it spreads like wildfire. Deer in a park will go on a great many years without any apparent deterioration, but let a stray buck come in, and mark the improved size, weight, and quality of the crossed produce. I possess a herd which had been bred nearly forty years without a cross, except a casual stranger once coming in just at the rutting season. Three years ago I lost, in the prime of the venison season, five or six fat bucks by a sort of scrofulous complaint. Long before I myself possessed any well-bred ——, I had watched those belonging to some friends and neighbours, and had entertained strong doubts as to the correctness of the modern practice of breeding, so much so, that I had almost made up my mind to adopt some other breed. But finding that —— became prevalent in my neighbourhood, I thought it best for my tenants' sake to adopt the fashion. I began with —— and ——, the former bred by ——, the latter by ——. I hired a bull from ——, and bought some at the —— sales, and elsewhere. In my dairy I had some good useful cows, purchased in ——, market, and some heifers, said to have a cross of good blood. Now the produce of the inferior bred cattle were decidedly the best; many of them would not have disgraced the highest pedigree. From one, which I purchased in a fair, and which from her shape and appearance I do not believe to have been thorough-bred, I bred by a celebrated bull. The produce I have now in my dairy, in my humble estimation the best cow I ever saw of any breed; a first rate milker, never-failing breeder, and carrying more meat on the best points than I ever saw any cow do in full milk. The pure and high bred have been very unlucky: in other words, they have shewn most decidedly the effects you describe. I have lost three in two years of decided scrofula; another met with an accident, which was considered the cause of its death, but I myself believe the accident, or rather injury arising therefrom, to have been 'incurable' merely from the scrofulous tendency of the constitution. I have just lost one of my best cows from consumption, pulmonary ulceration, and I have several showing indications of scrofulous nodes and swellings in the legs, jaw, &c. I do not find any particular stock with these indications; all very high-bred equally have, with me, been subject to the same, whilst my half-bred Alderneys, Alderney cross of Scot, &c., which I have to make up my dairy, breed well, milk well, and the calves rear without trouble, while the best-bred calves are with difficulty reared at al, and if they catch the least cold, die they will, without fail. I have several acquaintances who have made the attempt; all, as far as I have seen them, have shared the same fate. As to bulls, I think not more than one out of five, upon an average, get stock, unless kept very lean, and turned out with the cows; and at least one-half of the heifers either never breed at all, or leave off after bringing one or two calves at most. Last year, having endeavoured to feed off all hazardous and unlucky animals, I succeeded in rearing eighteen cow calves, but half of them were not high-bred, only a cross or so. My account then, I think, corresponds exactly with your opinion. Having stated thus much for your consideration, may I submit an opinon of my own? I don't see that it follows that the same rules which are found advisable to establish a good breed of cattle shall avail to keep it up. Facts prove the reverse: at the same time there is no reason, that I am aware of, why the same *first principles* which gave origin to the good stock, judiciously applied, should not accomplish the desired end. The breeders of the present day have erred in taking *'pars pro toto;'* finding that Bakewell produced his herd from only a few parent stock, they have neglected to observe the *first principles* upon which Bakewell started, and which would, had he been alive now, I have no doubt, have led him to detect an evil consequence of his own rule, early enough to apply a remedy. Shutting their eyes to the evident fate of Bakewell's once celebrated breed, they have vainly endeavoured to prove, that Herefords and short-horns were not subject to the same failure as the long-horned cattle have been. Bakewell took the best breed he could find, of which the prevalency in the kingdom was sufficient to afford him opportunity of extensive choice; and he required no affidavit to prove that from that period, 'whereof the memory of man sayeth not to the contrary,' the race of the animal he purchased possessed no blood but that of *'pure' long-horn.* 'The beast is such a one as I want for my purpose,' was his answer to all objections, and from the many anecdotes I have heard of the *secrecy* observed at Dishley, and the *strict practice of locking up all he did not choose should be seen, and of shutting his mouth when he did not choose to speak*, I do not believe any one knows the exact history of either Bakewell's opinions or his practice. My belief is, that we now want some one of courage to brave the stream of popular prejudice, and of skill to carry on what he attempts, who will adopt Bakewell's *first principles*, get a good bull and some good cows, not long-horned and short-horned, or any such incongruous mixture, but of such a breed, or breeds, as show affinity in general style, expunging the words *'Pure blood and pedigree'* from his herd-book, and I doubt not, he will raise and retain a good useful breed of superior animals, whether Hereford, short-horned, or any other.

"The county in which I am now writing is, I think, a fair example in opposition to generally received opinions amongst breeders. No people can understand less, or care less, than the generality of the Norfolk or Suffolk farmers do about the mysteries of breeding cattle. A cow is estimated merely by the quantity of her milk. A bull sometimes is chosen for his colour, or as coming from a noted dairy of good milkers. He is used at a year old, sometimes, but very rarely, kept a second season; and then another is reared, or *bought in, generally the latter.* The consequence of which is, that in every dairy there is a *perpetual cross.* Now Bakewell said of the Suffolk cattle, that any attempt to improve would spoil them. They are as good now as they ever were; and in all probability will be a hundred years hence, if the same principle be continued; and for hardihood and real profit, with small expense of keep, considering of course their small size, I am compelled in truth to say, they far exceed any breed of small cattle I know in the kingdom. They have been crossed with Herefords, and short-horns, and Devons, and receive frequent crosses every year from the Galloway Scot, still retaining their polled heads. I have seen some excellent home-breds reared from them, and if oxen were an object, they might easily be improved by selection. As to a barren cow, or a bull which will not get stock, such a thing is *rare to a prodigy*, and they appear to me to be less liable, in my observation of them for fifteen years, to disease, than any breed I ever met with in my life, Alderney excepted perhaps. May not a lesson be taken from hence?"

I feel well assured no apology is necessary for the introduction of so long an extract from this highly interesting letter, and only fear that it may suffer from the want of more able comments than I shall have to offer on certain parts of it. The writer is, however, entitled to an answer to his appeal, and having previously made a few remarks, I shall proceed to give that answer in the best manner which my humble ability will allow.

We are informed that even deer in a park will at length evince the ill effects of breeding in and in, and a symptom of deterioration, precisely similar to that evident in cattle, is adduced in evidence of the fact. This testimony I consider most important; first, because deer being kept by comparatively few gentlemen, and they probably indisposed to inquiries of this nature, it was hardly to be expected that any aid would be derived from them towards the establishment of the correctness of my opinions; and, secondly, because deer are so *nearly* in a state of nature, that, probably, if called on to do so, I should have yielded the question as to them. But we have now evidence that they deteriorate as well as other animals, and I doubt not, the fact is to be ascribed to their being confined within unnatural bounds, which in the first instance, probably affects the constitution, and is ultimately productive of too close a contact of consanguinities.

The next part of the letter calculated to call forth remark is, that in which, in the account of the writer's stock, it is said, the produce of his inferior-bred was better than that of his well-bred cows. Of this fact I do not entertain the least doubt; and it affords strong, indeed the strongest proof possible, that a very injudicious course of breeding must have been adopted with the high-bred animals in question; but while this is admitted, care should be taken to avoid too sweeping a conclusion. Many of the produce of these inferior cows, the writer of the letter informs me, "would not have disgraced the highest pedigrees." Such being the case, would it be quite safe or prudent to "expunge the words pure blood and pedigree from our herd book," while the possession of them, *on one side only*, will produce such effects? And will it not be better, while we retain this valuable resource for the improvement of an inferior race, rather to rouse our faculties, and endeavour, by discarding prejudice and adopting the means within our reach, to try whether it may not be possible to go on breeding, from animals highly descended, a produce improved in constitution, and at the same time not deficient in any important requisites? That such an end is attainable I have no doubt, but as I cannot dispose of this part of the question at present, I will not now further dwell on it.

The next point particularly demanding attention, is the suggestion of the writer, that no reason is apparent why "the same rules which are found advisable to establish a good breed of cattle shall avail to keep it up;" nor "why the same *first principles* which gave origin to the good stock, judiciously applied, should not accomplish the desired end." If I correctly interpret the foregoing passages, my conclusion from them will be this, viz. that the writer understands Bakewell's *first principles* to have consisted in *selection;* and his "*rules*," or practice, for the establishment of a good stock, in breeding to a certain point from affinities. In answer to the inquiry thus proposed, and supposing such to be the sense of the passages, my reply is, that the "rules" will no longer bear application; but that the "first principles," properly modified in consequence of altered circumstances, must always hold good. Indeed *judicious selections* appears to me the *sine qua non* of breeding. So far then, it seems, my sentiments are in unison with those of the writer of this excellent letter; but when we come to consider the principles on which that selection is to be made, I fear a little difference of opinion will be found to exist. I must confess myself a decided advocate for *blood*. I mean blood with its genuine and appropriate accompaniments, perpetuated in a long line of ancestry, if sometimes not so prominently in view as might be wished, yet never totally obscured. To such, I am confident, the breeders of the present day may, when they choose, refer, without incurring the risk, nay, the certainty of disappointment, by using an animal whose breed is unknown beyond a cross or two, and whose excellence not being one of *blood*, no assurance can be placed in its appearance, in a succeeding generation. Still the suggestions of the writer of the letter, accompanied by his statement, are highly important and worthy attention; and, in my opinion, justify a declaration, which I have long felt disposed to make, that where parties are not willing to go all the lengths necessary to possess a first-rate stock, I mean as regards *expense*, the *trouble of selection*, and *vigilance ever awake to the business of breeding*, they had much better leave the higher department of the art in other hands, and content themselves with the *certain* advantages to be derived from a reference to good males. This will insure the absence of disappointment, and a progressive and salutary improvement. I must, however, confess that I entertain little hope that either the strong facts of the gentleman who has honoured me by his communication, or any of my comments upon them, will have the effect of producing more sound practice. But there is one point on which I trust some little good may be done by discussion of this nature. It is possible breeders may, by such means, be shamed out of their prejudices, and refer to each other for assistance, no longer actuated by the little unworthy motives of jealousy, which have been allowed to cramp exertion and to ruin many once valuable stocks. In the hope something of this nature may follow, I shall venture, in perfect good feeling and without a design to inflict pain on any one, to state, that though, previously to the late almost unprecedented sale of short-horns which took place in the North, it was intimated that they were all closely descended from a certain small number of highly-prized individuals; yet, in that stock, there are to be traced no less than six recent crosses; a circumstance which pretty strongly denotes the sentiments of the able breeder, at the same time that, I have no doubt, it increased the intrinsic value of his cattle. Now such is the force of prejudice, and so fastidious is the public taste, that had these crosses been studiously brought under notice, instead of attention being drawn to the original animals, which were supposed to confer such high distinction, I cannot entertain a doubt but the sale would have proved much inferior, notwithstanding the unquestionable merit of the stock; so little are men in the habit of exercising their judgment and thus fitting it to guide them.

Henry Berry.

Pensham House, Pershore, Worcestershire.

(From the British Farmer's Magazine.)

BONE MANURE.

The Doncaster Agricultural Association has lately published a report on the advantages of bones as a manure, founded on returns received in answer to queries issued by the committee, of which the following is a digest:—

The question issued to the members referred to the time bones had been used—number of acres—state of the bones and their size—quantity employed—kind of soil—what time of the year, and for what crop—how applied, and which most convenient—effects compared with other manures, and other manures with them.

Answers were received from 49 members, and which collectively show, that bones were first used by Colonel St. Leger in 1775, next by Mr. Horncastle in 1794; but that they have only come into more general use within the last twenty years. The returns establish the great value of bones as a manure;—on light dry soils they are found to be superior to farm-yard dung; and altogether from the lightness of carriage, suitableness for the drill, and fertilizing properties, superior to any other in use among farmers. One wagon load (of 120 bushels of small drill bones, that is half inch pieces) is equal to 40 or 50 cart-loads of fold manure. Their effects are visible, not only on the first, but for several succeeding crops;—usual quantity 60 or 70 bushels per acre. When drilled, from 12 to 20 bushels suffice; and when this quantity is given to turnips, either upon the four or five course system, the farm may be kept in a progressive state of improvement.

"On heavy loams or clays the experiments are unfavourable." Hence it is concluded, that the bones are less suitable for wet than for dry land. For dry, or well-drained peat soils, they also prove superior to fold dung, nay, even to lime and pigeon dung. On the efficacy of bone dust on gravel, opinion is divided, but answers better on dry than on such as is wet. Of its durability an instance is given of one dressing continuing effective for fifteen years: but granting their application secures a crop only for the first year, the advantages are great, because one good crop of turnips is generally followed by others of both barley and clover.

One writer observes, that young turnips dressed with bone dust are less liable to the fly than those raised on common dressings, because he thinks the larva of the fly are contained in and carried forth with the fold or yard dung. The same writer, Mr. Birks, thinks bones are a defence against the insects which produce the disease called fingers and toes.

Every one of the members who had begun to use bones continued to do so;—no man being considered a good farmer who does not use them. Some of the members have adopted a very excellent plan, which should be followed every where, were it possible, viz. raise their turnips by bone dust, reserving all their yard or fold dress for their clover or wheat; so that a farm naturally inferior may soon be made and kept rich. Laid on pasture land, the effects are most conspicuous and profitable—quantity of milk increased, and quality of both butter and cheese improved. On grazing land it is also very lasting.

The best mode of application is by drilling with turnips in May, June, July, and August, especially for Swedish turnips. Others sow them broad-cast, and afterwards gather the surface into clasp-bouts for drilling. Some sow the dust broad-cast before the last furrow for white turnips. All agree in the belief, that the smaller the bones are crushed, the sooner they serve the crop; but the larger the pieces are, the longer will they continue effective. Average quantity employed per acre is 39 bushels, though if very small, a less quantity will do; but this mainly depends on the state of the ground as to richness.

The condition of the bones, when used, is a material question. On a first consideration every one would be led to conclude, that they would have the most powerful effect when saturated with marrow and other animal juices; and would as readily imagine that dry exhausted bones would be little worth; but it appears, that both these plausible notions are wrong. It does not seem to be the animal matter of fat, tendons, marrow, or muscle, which is the food of the plant, but probably some gaseous quality evolved during their decomposition. Thus bones which have passed through the process of an oil or glue manufacturer, are found to be more effectual as manure than recent bones from the kennel; and it seems to be settled by experience, that they require to be fermented in a heap before they can be used successfully. Fifty bushels of bones mixed with five loads of burnt clay, or good earth, form an excellent compost for dressing an acre of land. Some of the members recommend mixing the bones with several other substances, as soot, dove manure, rope dust, ashes of burnt weeds, and rotten dung, which they gravely assert will very much assist the action of the bones. A wet season, or wet ground, neutralizes the effect of the bones, and, therefore, it is only on dry soils, or in dry seasons, that they yield their best effects.

The present price of bones is said to be 2*s*. per bushel for small, and 1*s*. 10*d*. for large sized dust. Of the former, 25 bushels would cost 2*l*. 10*s*., and the latter, 40 bushels would cost 3*l*. 13*s*. 4*d*; and these are shown to be equal to eight or ten loads of dung, which would cost 4*l*. or 5*l*. But they have an extra value in being easy of carriage, and expeditiously applied.

From the general opinion that bones are most effectual in dry seasons and on dry soils, it would appear that the nutritive quality is either the lime or the salt they contain, because both these being powerful absorbents of moisture, give a vigour to vegetation beyond what either the season or soil would afford. In Lincolshire, where bones are extensively used, the farmers invariably prefer the *hardest* description—such as the leg bones of horses or other animals.

POTATOES.

It is stated in the St. Johnsbury (Vt.) Herald, that William Cobb, of Morgan, gathered a trifle short of three bushels, weighing one hundred and eighty-seven pounds, from one potato, planted the past spring.

Too much diffidence, as well as too forward a disposition, may impede a man's fortune.

The Military Bounty Lands of Illinois.

J. S. Skinner, Esq.

Believing that the American Farmer embraces in its scope the interests of every portion of the United States; I offer the following sketch of a territory, that is beginning to occupy a considerable share of public attention. These remarks are the result in part, of the actual observations made in a town of several weeks during the past autumn. And the residue have been derived from sources upon which I feel justified in reposing the utmost confidence.

The general aspect of the state of Illinois, is I believe pretty well known. It is, with but little exception, a prairie country. The timber generally lying in strips along the water courses. It is conceded that no state in the Union possesses a soil of such universal exuberance, where there is so little land incapable of the most productive cultivation. That part of the state, however, a short account of which I purpose submitting to you at present, has been until very recently but little visited or described.

The military bounty tract, under which name is included the north-west corner of the state, lying between the Mississippi and Illinois rivers, is so called because it was reserved by the Acts of Congress, of May 6th, 1812, and of April 29th, 1816, for distribution among the soldiers of the late war. It comprises the counties of Calhoun, Pike, Adams, Schuyler, Fulton, McDonough, Hancock, Warren, Knox, Peoria, Putnam, Henry, and Mercer, and covers a space 170 miles in length by an average breadth of 60 miles. Three fifths of this have been patented, and granted to the soldiers, the title to the residue is still in the United States, and it has never been offered for sale. The result of my observations on this extensive tract, is in coincidence with the opinion which is daily gaining ground; that no part of the Western country unites so many advantages, or is destined in a few years to support so dense a population. I am well aware that ever since the tide of emigration first received a direction towards the west, different spots have from time to time been urged upon public notice, engrossed for a while the attention of emigrants, and finally sunk into comparative insignificance. This consideration induces me to disregard the prodigious rush that is now making in that direction, and which is peopling the tract with unexampled rapidity, and to exercise generally a greater caution in coming to a conclusion. A short review of its many natural advantages cannot I think but satisfy every one capable of reflection, that the emigrant who selects it as a place of residence, may safely calculate upon seeing a populous and wealthy settlement grow up around him.

An inspection of the map will show that its position between the two great rivers already mentioned, which converge so gradually as to render the whole a narrow delta, gives it, in a commercial point of view, signal advantages. Of these rivers the Mississippi is at all times, except when full of ice, navigable for steam boats; and in fact four or five boats of this description, are now constantly running along the western coast of the tract to the lead country above. The Illinois, excepting three or four months in the year, is navigable for steam boats as high as the rapids, 170 miles from its mouth. The depth of its channel, the straightness of its course, and the slowness of its current, render it one of the best and safest for navigable purposes of the western rivers. Spoon river, one of its tributaries, which waters some of the finest portions of the tract, is likewise navigable a considerable distance for keel boats. The advantages of such a location need not be dwelt on for a moment, farther than to remark that already, before the settlements can be said to be established, or the soil taxed to produce necessaries in sufficient abundance to exchange for the luxuries of life, these latter are yet offered nearly as cheap as they can be procured in the eastern markets. The lead mine country on Fever river, furnishes even now, in the infancy of the lead manufacture, a very considerable market for produce of every description. This is a business which is destined to increase far beyond the anticipations of those who have not well considered the immense advantages that it possesses over every other mineral country known. The market of the lower country, and of New Orleans, this tract of course enjoys in common with all that border on the Mississippi. One other outlet must soon be opened to the trade of this state which should not be overlooked. The feasibility of connecting the waters of the Illinois with lake Michigan, has been granted from the earliest inspection of the country. For proof of it we need only refer to the often cited fact, that boats loaded upon Lake Michigan, have arrived without any portage at the harbour of St. Louis. With a view to facilitating this object, Congress have granted to the state of Illinois every alternate section of land along the route of the proposed canal, which engineers are at this time engaged in surveying. Without calculating too sanguinely upon the execution of this great work, we may conclude that its importance to the country at large will at no very distant day secure its completion. And in this event no part of the state will be more benefited than that under description.

The soil of this tract differs in no respect as to fertility from the rest of the state. There is scarcely to be found an acre of poor land. The river bottoms present as elsewhere an appearance of exuberance and fertility, of which an individual from the east without actual inspection, can hardly conceive. These spots where they are not subject to inundation are already tolerably settled, and are in considerable demand. The upland differs in appearance very strikingly from most of the residue of the state. The prairies, which in the lower part of the tract are small, and well interspersed with timber are throughout the whole of it, rolling and beautifully diversified with alternate slopes and acclivities, presenting landscapes of a beauty unsurpassed so far as I have seen, by any portion of equal extent in our country. Those who have visited these regions during the spring and early part of summer, dwell with rapture upon the loveliness in which nature has here decked herself. The prairies are covered with a carpet of the richest verdure, interspersed in the utmost profusion with flowers of every hue, filling the air with perfume. The monotony which is apt to weary in this scene of beauty where the prairies are level and extensive, is here relieved by the alternation of swells and hollows; and diversified by the frequency of groves of timber, which give to the country from their resemblance to the reservations of woodland and hedge rows, which the farms of the older states present, the appearance of cultivation.

It will readily be perceived that the solid advantages of this conformation are equal to the beauty upon which we have dwelt. Of these we may mention the facility with which farms may be drained, the abundance of springs and rivulets, with one of which almost every plantation may be supplied; and we should coincide with the general opinion, if we mention the better health which is supposed to be enjoyed in such a region than in a level one.

Every one of the numerous streams to which I have referred exposes in its channel quarries of the best description of building stone, smooth in its shape and easy of access. A single circumstance will serve to shew the advantage enjoyed in this respect over some highly favoured portions of adjoining territory. A farmer on the south side of the Illinois river, assured me that he carted the stone with which he walled his well, no less than 16 miles. This stone lies nevertheless, so far beneath the surface as not to interfere in the slightest degree with the passing of the plough. In fact, over the whole surface of the soil, a stone of any description is seldom to be met with. Coal of excellent quality is found diffused in inexhaustible quantities over nearly the whole of the tract; I do not remember to have inquired at a single place without being informed that this fuel had been discovered in the vicinity. Its importance to a country where timber is so scarce, can hardly be overrated. And if so many locations of it are already known in the cursory search that has been made for it, we may reasonably conclude that farther investigation will shew it in still greater abundance. Of the productiveness of the soil, I have already spoken. Grain of every description, yields an abundant increase, with the most careless culture. The method of raising the first crop of Indian corn is curious. Four yoke of oxen attached to the largest sized plough, break up the sod. And so tough is the sward of the prairie grass, that a team of this strength is requisite. The corn is dropped beneath the sod at suitable intervals, and from this time till it is gathered, the hand of man is not applied to it, and yet under this singular system, the yield is seldom less than 25 bushels to the acre. After the first year, no soil is easier tilled (it is of a loose friable texture, being a mixture of sand, and a black vegetable mould,) and the annual routine of farming operations may be carried as far as the industry of the farmer prompts him; and in proportion to the labour expended in its cultivation, the crop of corn will vary from 40 to 80 bushels; of wheat from 20 to 35 bushels to the acre. It is generally said, and I believe with truth, that the blue grass is the natural growth after the extermination of that of the prairies.

As far as regards its aptitude for fruit, and garden vegetables, I doubt whether it can be surpassed; peach and apple trees, so far as they have been tried, grow vigourously; the former is exempt here from the worm, or whatever else it is, that is so destructive at the east. I have seen onions in quantities, raised from the seed, one fourth of which would measure from 8 to 10 inches in circumference: of the size to which beets, radishes, turnips, &c. sometimes attain, stories were told to me by people of respectability, that to Eastern ears I should be afraid to repeat. It has been said, I know, that though the growth of these esculents is vigorous, yet their flavour is inferior to that of the same articles at the east. To this opinion I do entirely demur. The question to be sure is one purely of taste, and one consequently which it is not easy to bring to a conclusion. The weight of authority, however, as far as I could judge (and individually I give it my concurrence) inclines to the belief that such a distinction is altogether visionary.

(To be concluded in our next.)

LATE ENGLISH FAIRS.

At Horncastle fair, 21st August, hunters were immediately purchased with great avidity at high prices, a seven years old light bay produced £300, several £150 each. Wilton fair, Sept. 13th, there were 84,000 sheep! at Lewes fair 40,000 sheep! at Wheyhill last October fair, 150,000 sheep and lambs!

FAIRS IN IRELAND.

At *Dromore Fair*, which took place on the 18th of *August*, and was largely supplied, yearling calves produced from 3*l*. 10s. to 5*l*; milch cows, 7*l*. 10s. to 10*l*.; strippers, 8*l*. 10s to 12*l*. and fat sheep, 17s. to 32s. each; fat pigs, 23s. to 30s. per cwt.

Benaghin Fair, Sept. 25.—The number of sheep penned was above 27,000, or about 2,000 more than at our last September fair. The trade was, throughout, very dull, with wethers at from 24s. to 39s.;

ewes, 17*s.* to 25*s.*; and lambs, 9*s.* to 12*s.* 6*d.* each. Good horses were dear, though unprecedently numerous, say not less than 8,000: any thing of a gig horse sold for thirty guineas each, and sixty guineas each were demanded for three years old colts; in either, however, little was doing. The bullock fair was, on the third day, completely overwhelmed with fat and store beasts, which were ultimately all sold; but the prices obtained for them were from 20*s.* to 30*s.* per head beneath those the sellers had anticipated. The trade was, throughout, depressingly dull.

Ballinasloe October Fair.—The number of sheep penned was about 78,000; 70,014 of which were sold. The trade was throughout very dull, with wethers at from 6*s.* to 10*s*; ewes, 4*s.* to 5*s.*; and lambs, full 3*s.* beneath last year's prices,—wethers selling at from 20*s.* to 34*s*; ewes, 19*s.* to 36*s.*; and lambs, 8*s.* to 11*s.*; oxen, 7*l.* to 12*l*; and heifers, 7*l.* to 11*l.* 11*s.* each. In horses, which were numerous, little was doing. Nearly 8,000 sheep and a great number of neat cattle and horses left the fair unsold.

POTATOES.

Summerfield, Baltimore County, Jan. 18th, 1830.

J. S. Skinner, Esq.

Sir,—From mislaying my memorandum I was prevented from giving you earlier the result of a small experiment in the application of several kinds of manure in the cultivation of my last crop of potatoes; and I am convinced we have yet to acquire much information on the subject and the mode of planting this delicious vegetable. I design continuing my inquiries, and shall endeavour to ascertain, the cause of decay in that valuable culinary, which fact every practical farmer has experienced to amount to a partial destruction of that important article as to quality, I may say quantity, by constantly resorting to the same family for cuttings, which I think calculated to increase the number of eyes without multiplying and improving the quality of the crop, I mean the ordinary mode of cutting. Last year I cut the pieces with much care, leaving but one shoot or eye to each planting. I made about twenty-five bushels; drill, say six inches apart, the rows three feet apart, three and a half acres which in the common way would have taken upwards of fifty. Here was economy at once of fifty per cent. in planting, and I am convinced of one hundred per cent. in the product. Being but one stalk, it was unincumbered with that variety generally putting up and producing only inferior roots, interrupting each other, and affording a great show of vines with but little fruit. I examined my crop in a variety of places, a single stalk yielded from six to twelve, and even fourteen potatoes, few unfit for table use. Had I pursued the usual way I might have had a luxuriant crop of vines, with fewer bushels, and much smaller potatoes. My impression is that but one alternative exists to prevent this deterioration in the quality of this vegetable. Instead of the farmer resorting to an interchange of plantings with his neighbour, which has usually been deemed the only resort to keep up the original, we should recur to the seed, the great fountain of existence, and by this means only perpetuate indefinitely the same species. Vegetables, more particularly protuberously rooted, have their periods of increase, duration and decline, and cannot be expected to yield the same quality beyond a given time. Whether the English and Irish potato has been perpetuated by their experience in this matter, or from economy in growing from the seed I cannot say.

Suppose the grower of onions was to adhere to this mode of planting, would it not be imbecility and extravagance to cut large onions! This is often done, and the flavour and species is at once impaired. From an inconsiderable piece of ground, and a recurrence to the seed he is enabled to grow young onions sufficient for a large crop, the following season; the same practice should be extended to potatoes.

I contemplate planting one hundred and fifty bushels of potatoes the ensuing year, which at last spring's prices amounts to two hundred dollars, an important item for seed in a farmer's expenses. The labour of cutting and securing that quantity would have preserved seed sufficient to have grown a large crop, and thus much saved to the consumer and cultivator.

My last year's crop was fine, both in size and quality. I sold to a gentleman of Baltimore a quantity, and he was so much pleased with them, that he required a further supply. I was present at the delivery, and was invited to dine; he recommended the potatoes, I could scarcely believe them to be the same kind. I made free to inquire of the lady the manner in which they were cooked. I soon learned that the character of the potato was destroyed by being put into cold water, and suffered to remain until their meats were done and thus rendered scarcely fit for stock to eat. I would make it a *sine qua non*, in the employment of a cook whether or not, they understood cooking potatoes. I would here hint to the cook as well as the cultivator, that potatoes should be placed in a vessel of boiling water, and not rely upon steaming them, and cannot be cooked too quick. The water extracts that strong and acid quality common to all tuberous rooted vegetables. We often have them prepared whilst the cloth is spreading for dinner, say fifteen or twenty minutes. You will perceive from the table below; the great variation in the product, particularly where animal manure was a component. Slacked ashes yielding but trifling, the vines declining much earlier than either of the others, and in early succession those covered with a mixture of animal manure. I planted the second day of June in a light rye stubble, regarding equality of soil, and marked with oil colours stakes set up to remain until the crop was gathered, and to be more exact I resorted to weight instead of measurement, which is as follows:

No. 1	produced	106 lbs.	manure dry hay.
2	"	155 "	hay and straw with cow and horse manure.
3	"	80 "	corn husks.
4	"	155 "	hog pen manure.
5	"	108 "	potatoes alone.
6	"	114 "	dry rye straw.
7	"	113 "	cow manure.
8	"	52 "	slacked ashes.
9	"	138 "	chaff.
10	"	100 "	corn-stalks.
11	"	85 "	carpenter's shavings.
12	"	162 "	green grass.
13	"	140 "	oat straw.
14	"	143 "	wheat straw.
15	"	275 "	stable manure above.
16	"	101 "	small brush.
17	"	278 "	stable manure well rotted (beneath.)
18	"	197 "	long stable manure beneath.

I should have tried other kinds of manure, but they were not at hand, and was hurried from appearances of wet weather.

Joseph C. Cockey.

Captain Edmund Freeman of Wellfleet, Mass. last season gathered 35 bushels of apples from a single tree in his garden, 83 years old. The tree is in a sheltered situation, and the fruit resembles the Pearmain.

Two Beets were raised the present season by George Buchanan, Esq. of Pennsylvania, the joint weight of which was 20½ pounds.

HORTICULTURE.

(From the New England Farmer.)

MILK OF THE COW TREE.

Mr. Fessenden,—In your paper of December 25th, is a short notice of the Cow tree of Colombia. Having, through the politeness of Franklin Litchfield, Esq. American Consul at Puerto Cabello, received a quantity of the juice of this tree, together with a piece of the bark, to be deposited in the cabinet of the University, I have submitted it to a chemical examination. From the situation where the specimen I received was taken, and other circumstances, it is probable that the tree might be readily cultivated in some parts of the United States, and Mr. Litchfield has been requested to procure small plants or seeds for cultivation in the Botanic Garden in Cambridge.

The following is an extract from Mr. Litchfield's letter:—"I have the pleasure to send you a bottle of the milk of the *Arbol de la Vaca*, or Cow tree, which belongs to the family of the *Galactodendrons*, as well as a piece of the bark which I cut from the tree, out of which I assisted to collect the milk contained in said bottle. The tree from which I took the milk, grew upon a mountain in Patanemo, about five leagues from this port, and at a height of from 3 to 4000 feet above the level of the sea. Its circumference was about 2½ yards, and its elevation, I should judge, nearly 140 feet. At this altitude the temperature is quite cool, and for five or six months of the year, the atmosphere is quite damp, and frequent rains fall on the mountains. I also send a small piece of the wax which has been formed by merely exposing the milk to the air."

The specimen of the juice received, is white, and in general bears a very close resemblance to cows' milk, or rather cream; it is, however, somewhat thicker and has a viscid feel. By exposure to the air, its color is changed to a light brown, and the viscidity is increased by drying till it becomes of the consistency of wax; in this state it has the color of rosin.

The odor of this specimen is nearly the same as that of sour cream, and its taste is similar.

When heated, it presents the same appearances as cows' milk. By continuing the application of heat, a substance resembling wax is obtained, which is soluble in alcohol, and may perhaps become of use in some of the arts. This substance has some resemblance to Caoutchouc. It can be made to answer the purposes of wax in forming candles, as it burns with the emission of a pure and strong light.

A fibrous matter is separable from the milk, very analogous to the fibrin of animals.

There are some circumstances in which this highly curious and interesting liquid differs from cows' milk, viz. the absence of what is commonly called curd, and albumen. Wax, fibrin, sugar, and coloring matter are the principal substances obtained from the juice by analysis.

The tree which affords this milk, has been described by Humboldt, and the Spanish naturalists Rivero and Boussingoult. "I confess," says Humboldt, "that, among the great number of curious phenomena I have observed in the course of my travels, there are few which have made a stronger impression on my mind than the cow tree. All that has any connexion with milk, all that relates to cereals, inspires us with an interest which is not simply that of the knowledge of causes, but which is connected with another series of ideas and feelings. We cannot, without difficulty, believe that the human species can exist without farinaceous substances, nor without the nutritious milk contained in the bosom of a mother, which is intended for the long weakness of infancy. The starchy nature of grains,—an object of religious veneration among so many ancient and modern nations, is disseminated in the seeds, and deposited in the roots of vegetables; milk appears exclusively to be the production of animal organization. Such are the impressions we have received in childhood, and such is the cause of the astonishment we feel at the sight of the tree we are going to describe. Here our emotion is not caused by the dark, thick solitude of woods, nor by the majestic courses of rivers, nor by those mountains covered with eternal snow, but a few drops of a vegetable juice, make us sensible of the power and fecundity of nature. On the barren declivities of a rock grows a tree, whose leaves are dry and coriaceous. Its thick, ligneous roots scarcely enter the rock; for several months in the year, rain scarcely waters its fan shaped leaves. The branches appear dry and dead. But when an incision is made in the trunk, a sweet and nutritious milk flows from it. It is at the rising of the sun that the vegetable liquid runs most abundantly. Then the natives and negroes are seen to come from all parts, provided with vessels, to receive the milk, which becomes yellow, and thickens at the surface. Some empty their vessels under the same tree; others carry them to their children. It is like a shepherd distributing to his family the milk of his flock."—*Humboldt, Voyage aux Regions Equinoxiales du Nouveau continent*, lib. v. chapter xvi.

The following is from the account of Messrs. Rivero, and Boussingault:—"If those who possess these precious trees near their habitations, drink with so much pleasure their beneficent juice, with what delight will the traveller, who penetrates into these high mountains, appease with it his hunger and thirst? Thus we have seen, on the road from Patito, to Puerto Cabello, all these trees full of incisions, made by the travellers, who suck them with anxiety. It would be sufficient, it appears to us, that this milk could be used as an aliment, to value it, and invite to the cultivation of the trees which furnish it: but nature has been pleased to make it still more precious and useful; for besides containing so nutritious a substance as fibrin, it also contains, in abundance, an exquisite kind of wax, which may be extracted with great facility."

Yours, &c. J. W. W.

Harvard University, Jan. 2, 1830.

RURAL ECONOMY.

(From Cobbett's Cottage Economy.)

To the Labouring Classes of this Kingdom, (England.)

1. Throughout this little work, which is intended to be comprised in *Six Numbers*, I shall *number* the paragraphs, in order to be able, at some stages of the work, to refer, with the more facility, to parts that have gone before. The last number will contain an *Index*, by the means of which the several matters may be turned to without loss of time; for, when *Economy* is the subject, *time* is a thing, which ought by no means to be overlooked.

2. The word *Economy*, like a great many others, has, in its application, been very much abused. It is generally used as if it meaned parsimony, stinginess, or niggardliness; and, at best, merely the refraining from expending money. Hence misers and close-fisted men disguise their propensity and conduct under the name of *Economy;* whereas the most liberal disposition, a disposition precisely the contrary of that of the miser, is perfectly consistent with economy.

3. *Economy* means, *management*, and nothing more; and it is generally applied to the affairs of a house and family, which affairs are an object of the greatest importance, whether as relating to individuals or to a nation. A nation is made powerful and honoured in the world not so much by the number of its people as by the ability and character of that people; and the ability and character of a people depend, in a great measure, upon the *economy* of the several families which, all taken together, make up the nation. There never yet was, and never will be, a nation *permanently great*, consisting, for the greater part, of wretched and miserable families.

4. In every view of the matter, therefore, it is desirable, that the families of which a nation consists should be happily off; and, as this depends, in a great degree, upon the *management* of their concerns, the present work is intended to convey to the families of the *Labouring Classes* in particular, such information as I think may be useful with regard to that management.

5. I lay it down as a maxim, that, for a family to be happy, they must be well supplied with *food* and *raiment*. It is a sorry effort that people make to persuade others, or to persuade themselves, that they can be happy in a state of *want* of the necessaries of life. The doctrines, which fanaticism preaches, and which teach men to be *content* with *poverty*, have a very pernicious tendency, and are calculated to favour tyrants by giving them passive slaves. To live well, to enjoy all things that make life pleasant, is the right of every man who constantly uses his strength judiciously and lawfully. It is to blaspheme God to suppose, that he created men to be miserable, to hunger, thirst, and perish with cold, in the midst of that abundance which is the fruit of their own labour. Instead, therefore, of applauding "*happy* poverty," which applause is so much the fashion of the present day, I despise the man that is *poor* and *contended;* for, such content is a certain proof of a base disposition, a disposition which is the enemy of all industry, all exertion, all love of independence.

6. Let it be understood, however, that by *poverty* I mean *real want* a real insufficiency of the food and raiment and lodging necessary to health and decency; and not that imaginary poverty, of which some persons complain. The man, who, by his own and his family's labour, can provide a sufficiency of food and raiment and a comfortable dwelling place, is not a *poor man*. There must be different ranks and degrees in every civil society, and, indeed, so it is even amongst the savage tribes. There must be different degrees of wealth; some must have more than others; and the richest must be a great deal richer than the least rich. But, it is necessary to the very existence of a people, that nine out of ten should live wholly by the sweat of their brow; and, is it not degrading to human nature, that all the nine tenths should be called *poor;* and, what is still worse, *call themselves poor*, and be *contented* in that degraded state?

7. The laws, the economy, or management, of a state may be such as to render it impossible for the labourer, however skilful and industrious, to maintain his family in health and decency; and, such has, for many years past, been the management of the affairs of this once truly great and happy land. A system of paper money, the effect of which was to take from the labourer the half of his earnings, was what no industry and care could make head against. I do not pretend, that this was done *by design*. But, no matter for the *cause;* such was the effect.

8. Better times, however, are approaching. The labourer now appears likely to obtain that hire of which he is worthy; and, therefore, this appears to me to be the time to press upon him the *duty* of using his best exertions for the rearing of his family in a manner that must give him the best security for happiness to himself, his wife and children, and to make him, in all respects, what his forefathers were. The people of England have been famed, in all ages, for their *good living;* for the *abundance of their food* and *goodness of their attire*. The old sayings about English roast beef and plum-pudding, and about English hospitality, had not their foundation in *nothing*. And, in spite of all the refinements of sickly minds, it is *abundant living* amongst the people at large, which is the great test of good government, and the surest basis of national greatness and security.

9. If the labourer have his fair wages; if there be no false weights and measures, whether of money or of goods, by which he is defrauded; if the laws be equal in their effect on all men; if he be called upon for no more than his due share of the expenses necessary to support the government and defend the country, he has no reason to complain. If the largeness of his family demand extraordinary labour and care, these are due from him to it. He is the cause of the existence of that family; and, therefore, he is not, except in cases of accidental calamity, to throw upon others the burthen of supporting it. Besides, "little children are as arrows in the hands of the giant, and blessed is the man that hath his quiver full of them." That is to say, children, if they bring their *cares*, bring also their *pleasures* and *solid advantages*. They become, very soon, so many assistants and props to the parents, who, when old age comes on, are amply repaid for all the toil and all the cares that children have occasioned in their infancy. To be without sure and safe friends in the world makes life not worth having; and whom can we be so sure of as of our children. Brothers and sisters are a mutual support. We see them, in almost every case, grow up into prosperity, when they act the part that the impulses of nature prescribe. When cordially united, a father and sons, or a family of brothers and sisters, may, in almost any state of life, set what is called misfortune at defiance.

10. These considerations are much more than enough to sweeten the toils and cares of parents, and to make them regard every additional child as an additional blessing. But, that children may be a blessing and not a curse, care must be taken of their *education*. This word has, of late years, been so perverted, so corrupted, so abused, in its application, that I am almost afraid to use it here. Yet I must not suffer it to be usurped by cant and tyranny. I must use it; but, not without clearly saying what I mean.

11. *Education* means *breeding up*, *bringing up*, or *rearing up;* and nothing more. This includes every thing with regard to the *mind* as well the *body* of the child; but, of late years, it has been so used as to have no sense applied to it but that of *book-learning*, with which, nine times out of ten, it has nothing at all to do. It is, indeed, proper, and it is the duty, of every parent, to teach, or cause to be taught, their children as much as they can of books, *after*, and not before, all the measures are safely taken for enabling them to get their living by labour, or, for *providing them a living without labour*, and that, too, out of the means obtained and secured by the parents out of their own income. The taste of the times unhappily, is to give to children something of *book-learning* with a view of placing them to live, in some way or other, *upon the labour of other people*. Very seldom, comparatively speaking, has this succeeded, even during the wasteful public expenditure of the last thirty years; and, in the times that are approaching, it cannot, I thank God, succeed at all. When the project has failed, what disappointment, mortification and misery, to both parent and child! The latter is spoiled as a labourer; his book-learning has only made him conceited; into some course of desperation he falls; and the end is but too often not only wretched but ignominious.

12. Understand me clearly here, however; for, it is the duty of parents to give, if they be able, book-learning to their children, having *first* taken care to make them capable of earning their living by *bodily labour*. When that object has once been

secured, the other may, if the ability remain, be attended to. But, I am wholly against children wasting their time in the idleness of what is called *education;* and particularly in schools over which the parents have no control, and where nothing is taught but the rudiments of servility, pauperism and slavery.

(To be continued.)

LADIES' DEPARTMENT.

(From the Companion to the British Almanac.)

ON CLOTHING.

A very striking fact, exhibited by the Bills of Mortality, is the very large proportion of persons who die of *consumption.* It is not our intention to enter into any general remarks upon the nature of that fatal disease. In very many cases the origin of a consumption is an ordinary *cold;* and that cold is frequently taken through the want of a proper attention to clothing, particularly in females. We shall, therefore, offer a few general remarks upon this subject, so important to the health of all classes of persons.

Nothing is more necessary to a comfortable state of existence than that the body should be kept in nearly an uniform temperature. The Almighty wisdom, which made the senses serve as instruments of pleasure for our gratification and of pain for our protection, has rendered the feelings arising from excess or deficiency of heat so acute, that we instinctively seek shelter from the scorching heat and freezing cold. We bathe our limbs in the cool stream, or clothe our bodies with the warm fleece. We court the breeze or carefully avoid it. But no efforts to mitigate the injurious effects of heat or cold would avail us, if nature had not furnished us, in common with other animals (in the peculiar functions of the skin and lungs,) with a power of preserving the heat of the body uniform, under almost every variety of temperature to which the atmosphere is liable. The skin, by increase of the perspiration, carries off the excess of heat; the lungs, by decomposing the atmosphere, supply the loss;—so that the internal parts of the body are preserved at a temperature of about ninety-eight degrees, under all circumstances. In addition to the important share which the function of perspiration has in regulating the heat of the body, it serves the further purpose of an outlet to the constitution, by which it gets rid of matters that are no longer useful in its economy.

The excretory function of the skin is of such paramount importance to health that we ought at all times to direct our attention to the means of securing its being duly performed; for if the matters that ought to be thrown out of the body by the pores of the skin are retained, they invariably prove injurious. When speaking of the excrementitious matter of the skin, we do not mean the sensible moisture which is poured out in hot weather, or when the body is heated by exercise; but a matter which is too subtile for the senses to take cognizance of—which is continually passing off from every part of the body, and which has been called the *insensible* perspiration. This insensible perspiration is the true excretion of the skin.

A suppression of the insensible perspiration is a prevailing symptom in almost all diseases. It is the sole cause of many fevers. Very many chronic diseases have no other cause. In warm weather, and particularly in hot climates, the functions of the skin being prodigiously increased, all the consequences of interrupting them are proportionably dangerous.

Besides the function of perspiration, the skin has, in common with every other surface of the body, a process, by means of appropriate vessels, of absorbing or taking up, and conveying into the blood vessels, any thing that may be in contact with it; it is also the part on which the organ of feeling or touch is distributed.

The skin is supplied with glands, which provide an oily matter that renders it impervious to water, and thus secures the evaporation of the sensible perspiration. Were this oily matter deficient, the skin would become sodden, as is the case when it has been removed,—a fact to be observed in the hands of washerwomen, when it is destroyed by the solvent powers of the soap. The hair serves as so many capillary tubes to conduct the perspired fluid from the skin.

The three powers of the skin—perspiration, absorption, and feeling, are so dependent on each other, that it is impossible for one to be deranged without the other two being also disordered. For if a man be exposed to a frosty atmosphere, in a state of inactivity, or without sufficient clothing, till his limbs become stiff and his skin insensible, the vessels that excite the perspiration and the absorbent vessels partake of the torpor that has seized on the nerves of feeling, nor will they regain their lost activity till the sensibility be completely restored. The danger of suddenly attempting to restore sensibility to frozen parts is well known. If the addition of warmth be not very gradual, the vitally of the part will be destroyed.

This consideration of the functions of the skin will at once point out the necessity of an especial attention, in a fickle climate, to the subject of clothing. Every one's experience must have shown him how extremely capricious the weather is in this country. Our experience of this great inconstancy in the temperature of the air ought to have instructed us how to secure ourselves from its effects.

The chief end proposed by clothing ought to be protection from the cold; and it never can be too deeply impressed on the mind (especially of those who have the care of children,) that a degree of cold that amounts to shivering cannot be felt, under any circumstances, without injury to the health; and that the strongest constitution cannot resist the benumbing influence of a sensation of cold constantly present, even though it be so moderate as not to occasion immediate complaint, or to induce the sufferer to seek protection from it. This degree of cold often lays the foundation of the whole host of chronic diseases, foremost amongst which are found scrofula and consumption.

Persons engaged in sedentary employments must be almost constantly under the influence of this degree of cold, unless the apartment in which they work is heated to a degree that subjects them, on leaving it, to all the dangers of a sudden transition, as it were from summer to winter. The inactivity to which such persons are condemned, by weakening the body, renders it incapable of maintaining the degree of warmth necessary to comfort, without additional clothing or fire. Under such circumstances a sufficient quantity of clothing of a proper quality, with the apartment moderately warmed and well ventilated, ought to be preferred, for keeping up the requisite degree of warmth, to any means of heating the air of the room so much as to render any increase of clothing unnecessary. To heat the air of an apartment much above the ordinary temperature of the atmosphere, we must shut out the external air;—the air also becomes extremely rarefied and dry, which circumstances make it doubly dangerous to pass from it to the cold, raw, external air. But in leaving a moderately well warmed room, if properly clothed, the change is not felt; and the full advantage of exercise is derived from an opportunity of taking it that may occur.

The only kind of dress that can afford the protection required by the changes of temperature to which high northern climates are liable, is woollen. Nor will it be of much avail that woollen be worn, unless *so much* of it be worn, and it be *so* worn as effectually to keep out the cold. Those who would receive the advantage which the wearing woollen is capable of affording, must wear it next the skin; for it is in this situation only that its health-preserving power can be felt. The great advantages of *woollen cloth* are briefly these; the readiness with which it allows the escape of the matter of perspiration through its texture—its power of preserving the sensation of warmth to the skin under all circumstances—the difficulty there is in making it thoroughly wet—the slowness with which it conducts heat, the softness, lightness, and pliancy of its texture.

Cotton cloth, though it differs but little from linen, approaches nearer to the nature of woollen, and on that account must be esteemed as the next best substance of which clothing may be made.

Silk is the next in point of excellence, but it is very inferior to cotton in every respect.

Linen possesses the contrary of most of the properties enumerated as excellencies in woollen. It retains the matter of perspiration in its texture, and speedily becomes imbued with it; it gives an unpleasant sensation of cold to the skin;—it is very readily saturated with moisture, and it conducts heat too rapidly. It is, indeed, the *worst* of all the substances in use, being the least qualified to answer the purposes of clothing.

There are several prevailing errors in the mode of adapting clothes to the figure of the body, particularly amongst females. Clothes should be so made as to allow the body the full exercise of all its motions. The neglect of this precaution is productive of more mischief than is generally believed. The misery and suffering arising from it begin while we are yet in the cradle. When they have escaped from the nurse's hands boys are left to nature. Girls have for awhile the same chance as boys in a freedom from bandages of all kinds; but as they approach to womanhood, they are again put into trammels in the forms of stays. The bad consequences of the pressure of stays are not immediately obvious, but they are not the less certain on that account; the girl writhes and twists to avoid the pinching, which must necessarily attend the commencement of wearing stays tightly laced; the posture in which she finds ease is the one in which she will constantly be, until at last she will not be comfortable in any other, even when she is freed from the pressure that originally obliged her to adopt it. In this way most of the deformities to which young people are subject originate; and, unfortunately, it is not often that they are perceived until they have become considerable, and have existed too long to admit of remedy.

MISCELLANEOUS.

A gentleman occupied a farm in Essex, where he had not long resided before numerous rooks built their nests on the trees surrounding his premises; the rookery was much prized; the farmer, however, being induced to hire a larger farm about three quarters of a mile distant, he left the farm and the rookery; but, to his surprise and pleasure, the whole rookery deserted their former habitation, and came to the new one of their old master, where they continued to flourish. It ought to be added, that this gentleman was strongly attached to all animals whatsoever, and of course used them kindly.

[*Zoological Journal.*

In the 14th century, the manufactories in Louvain contained 150,000 workmen; and when they left work, they were compelled to ring a large bell, that the women might keep the children in doors, lest they should be thrown down and trampled under foot.

THE FARMER.

Baltimore, Friday, January 22, 1830.

☞ It is a common observation that no commodity maintains through all changes of circumstances, an uniformly high price, like the well formed, well broken, *saddle horse* of good appearance and good action. Corn, wheat, tobacco, oats, hay, flour, pork, wool, beef, Irish potatoes and whiskey, may go up this year and down the next to almost nothing, leading the farmer one year to ruinous speculations, and overwhelming him by sudden depression the next; but the fine horse, rising any where above fifteen hands, docile and well gaited, with a sure foot and good spirit, will always command from $150 to $250. The demand is always brisk; the supply very limited. It is the universal complaint, that nothing is so hard to find as a really active clean boned horse, of good wind and mettle, that will not put your life in jeopardy as many hacks do, even on good roads, much more on rough ones. For ourselves it is our good fortune to own a son of old Oscar, about twenty years old, his dam by the imported Punch, that for four seasons has been ridden in the chase in all gaits, over all sorts of grounds, and going freely "at timber," without ever causing us in a single instance to feel that there was any danger of his going down.

To almost every horse even of fair appearance at first sight, there will be found, on critical inspection and trial, some capital objection. The query is as to the cause of the difficulty, and its remedy. Amongst others, the most obvious cause is the great number of *vile beasts* that are pampered and patronised as covering stallions. Though always pointedly opposed to excess of legislation, we should be pleased to see some legislative regulation on this subject, and we feel persuaded that the end might be accomplished by giving authority to the levy courts in each county, to levy a tax, of say, fifty dollars, on every covering stallion. In such case none but really superior horses would be kept; the number of stallions would be so much reduced that such horses would meet with adequate encouragement, and in a few years the state would realise hundreds of thousands of dollars in the *improved value of its horses*. Maryland would not only supply herself, and save the immense sums that are now sent abroad; but she would export horses to, and import money from other states; and why would not this be as fair a subject of taxation, and as salutary a source of revenue as is the sale of licenses to retail whiskey, poison and crime? Ah! there is this essential difference; the one is popular with the sovereigns, the other it is feared would not be so!! There are upwards of seven hundred licensed retailers of ardent, (burning) liquors in some cities, each of whom has his influence at elections!! Well, to make the tax on stallions *popular*, for that is the great *desideratum*, let the proceeds be given to some popular object; we verily believe that legislative regulations might be made on this subject that would eventuate in more benefit to the state than all the militia musterings and whiskey drinkings since the revolutionary war. But that is saying nothing; for these we have long ago condemned as demoralizing and pernicious in the highest degree.

Let us take measures to ensure in every county one or more well bred, and well formed stallions, (size not so indispensable) and with large country mares of the best forms that can now be had, (continuing in the mean time, as a heavy license would do, to castrate or cut the throats of all the bull-necked, strait-shouldered, gouty-legged, barrel-of-corn,-and-a-quarter-of-a-dollar-to-the-groom-stallions,) and every farmer might realize from his horses, from 6 to $1500 per year.

Recurring to the observation with which we commenced, there is no danger of an over supply; for experience of half a century, in peace, and in war, and in the worst of times, shows that *good horses* will always command good prices. We have said that the *size* of the sire is of not so much consequence as is generally supposed; with a large and roomy dam of the best form that can be procured, it will suffice that the sire be of moderate size, and of that genuine blood which can alone ensure bottom; with clean legs, and bone as hard as flint, backed and strengthened by large tendons and sinews; after the model, with little exception, of Shakespeare's Horse of Adonis.

> "Round hoofed, short jointed, fetlocks shag and long,
> Broad breast, full eyes, small head and nostrils wide,
> High crest, short ears, straight legs, and passing strong,
> Thin mane, thick tail, broad buttocks, tender hide."

In another paper we may attempt to show how many horses otherwise valuable are ruined by being *unskilfully handled in the breaking:* competent men should establish institutions and be well paid for this service. The advantage would endure during all the life of the animal, and greatly augment his value.

For the present we shall close these very hasty remarks, by an extract in support of what we have said about the size of sire and dam, from an essay by Professor Cline, of London, the ablest we have ever seen "On the Form of Animals." The whole essay will be found in No. 14, vol. 3, of the American Farmer.

The Bones.

The strength of an animal does not depend upon the size of the bones, but on that of the muscles.—Many animals with large bones are weak, their muscles being small. Animals that were imperfectly nourished during growth, have their bones disproportionately large. If such deficiency of nourishment originated from a constitutional defect, which is the most frequent cause, they remain weak during life. Large bones, therefore, generally indicate an imperfection in the organs of nutrition.

On the improvement of Form.

To obtain the most approved form, two modes of breeding have been practised—one, by the selection of individuals of the same family—called *breeding in-and-in*. The other by selecting males and females from different varieties of the same species; which is called *crossing the breed*.

When a particular variety approaches perfection in form, breeding in-and-in may be the better practice—especially for those not well acquainted with the principles on which improvement depends.

When the male is much larger than the female, the offspring is generally of an imperfect form. If the female be proportionally larger, the offspring is of an improved form. For instance, if a well formed large ram be put to ewes proportionally smaller, the lambs will not be so well shaped as their parents; but if a small ram be put to larger ewes, the lambs will be of an improved form.

The proper method of improving the form of animals, consists in selecting a well formed female, proportionally larger than the male. The improvement depends on this principle, that the power of the female to supply her offspring with nourishment is in proportion to her size, and to the power of nourishing herself from the excellence of her constitution.

The size of the fœtus is generally in proportion to that of the male parent; and therefore, when the female parent is disproportionately small, the quantity of nourishment is deficient, and her offspring has all the disproportions of a starveling. But when the female, from her size and good constitution, is more than adequate to the nourishment of a fœtus of a smaller male than herself, the growth must be proportionately greater. The larger female has also a greater quantity of milk, and her offspring is more abundantly supplied with nourishment after birth.

To produce the most perfect formed animal, abundant nourishment is necessary from the earliest period of its existence, until its growth is complete.

It has been observed, in the beginning of this paper, that the power to prepare the greatest quantity of nourishment, from a given quantity of food, depends principally upon the magnitude of the lungs, to which the organs of digestion are subservient.

To obtain animals with large lungs, crossing is the most expeditious method; because well formed females may be selected from a variety of a large size, to be put to a well formed male of a variety that is rather smaller.

By such a method of crossing, the lungs and heart become proportionately larger, in consequence of a peculiarity in the circulation of the fœtus, which causes a larger proportion of the blood, under such circumstances, to be distributed to the lungs than to the other parts of the body; and as the shape and size of the chest, depend upon that of the lungs, hence arises the remarkably large chest, which is produced by crossing with females that are larger than the males.

The practice according to this principle of improvement, however, ought to be limited; for it may be carried to such an extent, that the bulk of the body might be so disproportioned to the size of the limbs as to prevent the animal from moving with sufficient facility.

In animals, where activity is required, this practice should not be extended so far as in those which are required for the food of man.

☞ Cultivation of Sugar.—An opportunity now offers for an experiment in the cultivation of sugar in Maryland, and gentlemen of the lower counties, and on the Eastern Shore, who have light sandy soil, somewhat protected from northern winds, should make a trial of the *Ribband Sugar Cane,* which is for sale at Messrs. Sinclair and Moore's. Those who have attentively perused the American Farmer, will have obtained all the information necessary to the cultivation of the cane—especially for the experiment. We refer to an article in the American Farmer, No. 5. vol. 10, page 33, for the general outlines, and the character of the *Ribband Cane*. This cane has been raised here, though planted a fortnight too late, and gathered too early, and five joints ripened. In Georgia it has been profitably cultivated on *light sandy pine lands*, where nothing else could be raised, and we see no reason why it may not succeed on the light lands of the lower counties, and Eastern Shore of Maryland and Virginia. Should the cultivation of sugar succeed even partially on the bayside lands, it would be an important acquisition to the farming interests, and therefore well deserves a trial.

LATEST FOREIGN NEWS.

Still later news, than what we give below, from England may be expected by this morning's mail, the packet ship Napoleon having been announced below New York on Tuesday. She is expected to bring dates as late as the 24th December.

The packet ship Canada, has arrived at New York, bringing London dates to the 15th, and Liverpool to the 16th December. The negociations on the subject of the West India trade, were continued, as the London Herald asserts, with every prospect of success. Many instances of handsome reductions in tythes and rents had been made by the clergy and landlords, in consequence of the low prices of agricultural products and the pressure of the times. Some further disturbances had occurred among the weavers at Norwich. Their employers undertook to reduce the wages. The weavers sent a deputation to their employers, to prevent the reduction, but not succeeding, a mob, to the number of 3,000, broke the windows, gates, furniture, &c. of their masters, and continued embodied in the perpetration of mischief, until a squadron of dragoons appeared as likely to come in their way.

France.—The fermentation in France has measurably subsided, and the Polignac administration had become firmly established. Peace was expected soon to take place between France and Algiers. During a thunder storm on the 18th November, the magazine of the Citadel at Navarin, in the Levant was exploded by lightning, and 100 men killed or wounded, and all the huts in the neighborhood destroyed. The Minister of Marine, in a letter says:—

"The commotion was so violent that every vessel thought itself struck by the lightning, and an examination was made, both within and without, to ascertain the fact. Soon afterwards, being informed of the misfortune, I went on shore with 800 men, drafted from the different ships, and a great number of torches, &c. It will be difficult to form an idea of the dreadful scene which we witnessed. The darkness of the night rendered our task extremely difficult. It was even dangerous, because many thousand bombs and grenades had been scattered by the explosion, and covered the ground, still loaded, and before our arrival, fires had been kindled in the midst of them to afford light. Happily, a heavy rain had spoiled the matches. One, however, caught fire and burnt, but did not explode. Order was immediately given to put out all the fires, and keep only the torches."

Turkey.—A letter from Constantinople, Nov. 10, says: "A few days ago we had here the rare sight of witnessing the passage of several Greek merchantmen, with the Greek flag hoisted, sailing through the great channel into the Black Sea. They were principally laden with oil and wine."

A letter from Adrianople, Nov. 15, says: "Our city was evacuated by the Russians on the 11th of this month; I will not conceal from you that we are very sorry for it. We have been so accustomed for these three months to see the Russians, that their departure leaves us in a kind of solitude; the public houses, taverns, and hotels, were so animated, and so crowded. All is now melancholy, gloomy, and dull. Besides, we are now certain of having the Pacha of Scutari for our Governor, who has the honour of being cordially detested here. Accordingly many persons of distinction are more resolved than ever to quit the city, and are already making preparations for that purpose."

LIVERPOOL, *December* 12.

Our Cotton market has continued dull throughout the whole week, and we notice a decline of about ¼d per lb. in the prices of most descriptions, except Sea island, in which there is no alteration. The sales (including 220 Bowed, of fair to good quality, sold by auction yesterday at 6d to 6¼) amount to 5280 bags, consisting of 1400 Bowed at 5¼ to 6¼, (25 at 6 7-8d,) chiefly at 6d to 6¼, for fair to fully good fair; 470 Orleans at 5 7 8d to 7d; 1010 Alabama and Mobile at 5¼d to 6¼; 450 Sea island at 12d to 2s; 30 Stained ditto at 6 1-8d to 10d; 240 Pernambuco at 7¼d to 7¾d; 900 Maranham at 6¼d to 6 7-8d, (20 at 7d;) 250 Bahia at 6 1-8d to 6¾d; 160 Egyptian at 6 1-8d to 7d, (10 at 8¼d;) 230 Demerara at 7¼d to 7½d; 70 Carthagena at 4¾d; 40 Surat at 4d to 4¼d. The arrivals are 9136 bags. There has been a steady demand for tobacco, both for home use and Ireland.—Several public sales of new Carolina rice have been attempted, but very little has hitherto been disposed of: about 80 tierces only have found buyers at 14s 6d to 15s 6d per cwt. —Our Corn market has remained without any alteration worthy of notice; the supplies from Ireland have come forward more freely, but the demand has been good, and prices supported.

December 15.

In consequence of unfavorable winds our supplies are very moderate, and during the past week there has been little or no alteration in the value of any article in the trade, except old wheat, which brought an advance of 1d a 2d per bushel. Our neighboring farmers are now supplying the market, freely, with wheat, at from 8s 3d a 9s 3d per bush.

At this day's market new wheat met a slow sale, and all except the very finest qualities must be noted 2d pr bushel cheaper, and old 2d dearer. Grinding is dull sale at 4s to 4s 4d; malt beans and Indian corn sells on much the same terms as last week; oats are very scarce and ready sale at fully last Tuesday's prices; flour and oatmeal in fair request at steady prices.

Average of wheat for the week, 57s 2d; six weeks 56s 4d—duty 30s 8d—on flour 18s 5½d.

December 16.

COTTON.—The sales of cotton since the publication of the Price Current of Saturday, amount to about 5000 bags at the quotations of that day; and the market up to this hour continues steady.

CLOVER SEED, &c.

The subscriber has on hand for sale 180 bushels of Clover Seed, the greater part of which is very superior, weighing 63 lbs. to the bushel. Also, Orchard Grass Seed of fine quality. Likewise, 500 bushels of Northern Potatoes, Whites, Blues and Mercers, for seed.

A general assortment of the Messrs. Landreth's superior Garden Seeds, which he will furnish at wholesale or retail. Can also furnish to order, Fruit and other Trees, Plants and Bulbous Roots from the Messrs. Landreth's Nursery. He has likewise on hand, his usual supply of Agricultural Implements, which, he trusts, are too well known and appreciated to require recommending. He has lately become the Agent for Messrs. A. H. & L. Robins' Corn Planter, which is calculated for planting various kinds of seeds. He is also invested with the power to dispose of the patent right for the Corn Planter in any part of this State and East Virginia. All communications by mail (not orders) must be *post paid*, and they will receive immediate attention.

JONATHAN S. EASTMAN.
No. 36, west Pratt street,
G. P. C. Between Charles and Hanover streets.

Prices Current in Boston, January 15.

Apples, best, bbl. 1.75 a 2.25. *Beans*, white, bushel 1.00 a 1.25. *Beef*, mess, bbl. 9.25 a 9.50; cargo No. 1, 7.75 a 8.00; No. 2, 6.75 a 7.00. *Butter*, inspected, No. 1, new, lb. .12 a .14. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.50 a 5.75; Genesee, 5.50 a 5.75; Rye, best, 3.62 a 3.87. *Grain*, Corn, bu. .62 a 63; Rye, .75 a .78; Barley .67; Oats .40 a .45. *Hogs'-Lard*, 1st sort, new, lb. .8 a .8½. *Pork*, clear, bbl. 15 a 16; Navy, mess, 12.50 a ——; Cargo, No. 1. ——a 12.50. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Worzel ——. *Wool*, Merino, full blood, washed, .38 a 40; do. do. unwashed, .— a .25; do. three-fourths, washed, .30 *a* .35, do. half blood, .28 *a* .33; do. quarter, washed, .25 *a* .28; Native, washed .25 a .28; Pulled, Lambs', 1st sort, .37 a 38; do. 2d sort, .28 a .31; do. Spinning, 1st sort, 30 a .33.

Prices Current in New York, January 16.

Bees-wax, yellow .22 a 23. *Cotton*, New Orleans .10 a .12½; Upland, .8¾ a .10½; Alabama, .9 a 11. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask — a 10.75; clean 11.25. *Flour*, N. York, bbl. 4.87½ a 5.00 Canal 5.31 a 5.62½; Balt. Howard st. 5.25 a —— Richmond city mills, 5.25 a ——, country, 5. a —— Alexand'a, 5.00 a 5.12½; Fredericksburg 4.75 a——; Petersburg. 4.87½ a —— Rye Flour, —— a 3.50; Indian Meal, per bbl. 2.37½ a ——; per hhd 13.00 a 13.25. *Grain*, Wheat, Genesee, 1.03 a 1.06; Vir. 80 a 90; Rye, North, 70 a 71; Corn, Yel. Nor. .52 a —; Barley, 68 a .70; Oats, South and North, .30 a .37; Peas, white, dry, 7 bu.——; Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8 a 8.50; prime 5.75 a 6.25; cargo 4.25 a 4.50; Butter, N. York, .12 a .15; shipping, .8 a 11; Lard, .5 a .6; Pork, mess 11.00 a 12; prime 9.00 a 9.50.

RIBBAND SUGAR CANE.

A quantity of the Ribband Sugar Cane has been received, and may be obtained on application at the Seed Store of Messrs. Sinclair and Moore, price 12½ cents per cane. The cane is in excellent condition for planting.

ALMANAC.

1830. JANUARY.	SUN. Rises. H.	M.	SUN. Sets. H.	M.	Length of days. H.	M.	Moon. rises. H.	M.
Saturday,...... 23	7	8	4	52	9	44	5	30
Sunday,........ 24	7	7	4	53	9	46	6	20
Monday,....... 25	7	6	4	54	9	48	sets	
Tuesday,...... 26	7	5	4	55	9	50	7	27
Wednesday,.. 27	7	4	4	56	9	52	8	25
Thursday,..... 28	7	3	4	57	9	54	9	35
Friday,......... 29	7	2	4	58	9	56	10	42

New Moon—24th 00h. 23m. Eve.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

BALTIMORE MARKETS.—There has been very little change in any of the staple articles of the market. Pork has declined a little—family corn fed from wagons, is selling at $4.50 à 4.75. The wagon price of Howard street flour is $4.25. Very little wheat has been received for the last two weeks.

TOBACCO.—Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 6.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12.00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week comprise 83 hogsheads Maryland, 6 hhds Ohio, and 7 hhds Missouri.—Total 96 hhds.

FLOUR—best white wheat family, $5.75 *a* 6.25—super. Howard st. 4.37½ *a* —city mills, 3.87½ *a* 4.00; Susquehanna, ——. CORN MEAL, bbl. —— *a* 2.25—GRAIN, best red wheat, .75 *a* .80; best white do. .90 *a* .95; ordinary to good, .65 *a*. .70—CORN, old white, .38 *a* —; yel. .38 *a* —; new .— *a* —RYE, .47 *a* 48: OATS, .— *a* .30 BEANS, 90 *a* 1.00—PEAS, .65 *a* —CLOVERSEED, 4.75 *a* 4.87 —TIMOTHY, 2.50—ORCHARD GRASS, 2.00 —Herd's, — *a* 1.50—Lucerne .37½ *a* .50 lb.—BARLEY, . — *a* .— FLAXSEED, 1.12½—COTTON, Vir. .9½ *a* .10½ Lou. .11 *a* .12 —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—WHISKEY, hhds. 1st p. .21 *a* .21½; in bbls. .23 *a* 23½—WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .28 *a* .30—full do. .30 *a* .35, accord'g to qual.—HEMP, Russia, ton, $215 *a* 220; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6.00 *a* —— No. 2, 5.62½ *a* —No. 3, 3.50 *a* ——BACON, hams, Balt. cured, .9 *a* .9½—Feathers, .30 *a* 31—Plaster Paris, cargo price per ton, 4.75, ground, 1.25 bbl.—Prime Beef on the hoof, .4.00 *a* 5.00 —Pork on the hoof, 4.25 *a* 4.50—Pine Wood, by the vessel load, 2.50—Oak Wood, 3.50—Hickory, 5.

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AGRICULTURE.

(From Loudon's Encyc. of Agriculture.)

ON THE CULTIVATION OF CLOVER.

In the choice of sorts the red or broad clover is the kind most generally cultivated on land that carries white and green crops alternately, as it yields the largest produce for one crop of all the other sorts. White and yellow clover are seldom sown with it, unless when several years pasturage is intended.

The soil best adapted for clover is a deep sandy loam, which is favorable to its long tap-roots: but it will grow in any soil, provided it be dry. So congenial is calcareous matter to clovers, that the mere strewing of lime on some soils will call into action clover-seeds, which it would appear have lain dormant for ages. At least this appears the most obvious way of accounting for the well-known appearance of white clover in such cases.

The climate most suitable for the clovers, as of most plants, natives of Europe, is one neither very hot nor very dry and cold. Most leguminous plants delight both in a dry soil and climate, and warm temperature, and the clover will be found to produce most seed under such circumstances; but as the production of seed is only in some situations an object of the farmer's attention, a season rather moist, provided it be warm, is always attended by the most bulky crops of clover herbage.

The preparation of the soil and manures, which clover receives in ordinary farm culture, are those destined also for another crop; clover mixed with a certain proportion of rye-grass being generally sown along with or among corn crops, and especially with spring sown wheat, barley, and the early varieties of oats. Unless, however, the soil on which these crops are sown are well pulverized, and have been some years under tillage, clovers will not succeed in them, it being ascertained that newly-broken-up leys or pasture grounds cannot be sown down or restored to clover and grasses, till the soil is thoroughly comminuted, and the roots of the former grasses and herbage plants completely destroyed.

The time of sowing clover-seeds is generally the spring, during the corn-seed time, or from February to May; but they may also be sown from August to October, and when they are sown by themselves, that is, unaccompanied by any corn crop, this will be found the best season, as the young plants are less liable to be dried up and impeded in their progress by the sun, than when sown alone in spring, and remaining tender and unshaded during the hot and dry weather of July.

Some prepare the seed for sowing by steeping in water or in oil, as in Switzerland, and then mixing it with powdered gypsum, as a preventive to the attacks of insects.

The manner of sowing is almost always broad-cast. When sown with spring corn, clover and grass-seeds are usually put in immediately after the land has been pulverized by harrowing in the corn-seed, and are themselves covered by one course more of the harrows; or, if the corn is drilled, the small seeds are sown immediately before or after hand-hoeing; and the land is then finished by a course of the harrows. A lighter harrow is generally employed in covering such seeds, than that used for corn. When the land is under an autumn sown crop of wheat or other grain, though the clovers and rye-grass are still sown in spring, the proper period must depend both upon the state of the land, and the progress of the crops; and it may be often advisable to break the crust formed on the surface of tenacious soils, by using the harrow before the clovers are sown, as well as afterwards to cover them. Sometimes the roller only is employed at this time, and there are instances of clover and rye-grass succeeding when sown, without either harrowing or rolling. But it is commonly of advantage to the wheat crop itself, to use the harrows in spring, and the roller alone cannot be depended on, unless the season be very favorable. In some cases grass-seeds are sown by themselves, either in autumn or spring, but rarely on tillage land. Nature has not determined any precise depth for the seed of red clover more than of other seed. It will grow vigorously from two inches deep, and it will grow when barely covered. Half an inch may be reckoned the most advantageous position in clay soil; a whole inch in what is light or loose. It is a vulgar error, that small seed ought to be sparingly covered. Misled by that error, farmers commonly cover their clover seed with a bushy branch of thorn; which not only covers it unequally, but leaves part on the surface to wither in the air.

In the operation of sowing some consider it best to sow the clover and rye-grass separately, alleging that the weight of the one seed and lightness of the other, are unfavorable to an equal distribution of both.

The quantity of seed sown on an acre is exceedingly various; not only according as more or less white or yellow clover is sown along with grass-seeds and red clover, or when pasturage is intended, but, even when they are the only kinds sown, the quantity is varied by the quality of the soils, and the different purposes of hay, soiling, or one year's pasture, to which the crop is to be applied. When pasture is the object, more seed ought to be allowed than is necessary when the crop is to be cut green for soiling; and for hay, less may suffice than for either of the former. Finely pulverized soils do not require so much seed as clays, on which clover and rye-grass are very frequently sown among autumn or winter-sown wheat, when there is more danger of a part of it perishing from being imperfectly covered. In general, eight or ten pounds may be taken as the *minimum* quantity, though there have been instances of good crops from less; and from that to fourteen pounds or more per English statute acre. Rye-grass, commonly at the rate of a bushel per acre, but in many cases only half, or two-thirds of a bushel, is mixed with this weight of clover, and both are sown at the same time. The rye-grasses may be either of the perennial or annual variety, as it is understood that the herbage is to be continued for only one year; and the annual is sometimes sown in preference, as producing a bulkier crop than the perennial.

When it is intended to retain the land in pasture for several years, the quantity of red clover is diminished, and several kinds of more permanent herbage are added, the most common of which are white and yellow clover, and ribwort. No general rule can be laid down as to the proper quantity of each of these kinds; in some cases red and white clover are sown in equal proportions, and in others the latter is made greatly to predominate. The yellow clover and ribwort are not often sown at the rate of more than two or three pounds per acre. It is scarcely necessary to add, that, in this case, the rye-grass should always be of the perennial sort.

In the selection of clover and rye-grass seeds particular attention should be paid to their quality and cleanness; the purple color of the clover seed denotes that it has been ripe and well saved; and the seeds of weeds may be detected in it by narrow inspection, if there be any; but various noxious weeds are frequently mixed up with the seeds of the rye-grass, which it is difficult either to discover or to separate from them. Between the seeds of the annual and perennial rye-grass, the difference is hardly discernible; and therefore, unless it is of his own growth, the cultivator must depend in a great measure on the character of the person from whom he purchases it. Red clover from Holland or France, has been found to die out in the season immediately after it has been cut or pastured; while the English seed produces plants, which stand over the second, many of them the third year (*General Report of Scotland*, vol. i. p. 537;) thus remaining in the latter case four summers in the ground from the time of sowing.

The after culture of clover and rye grass consists chiefly of picking off any stones or other hard bodies which may appear on the surface in the spring succeeding that in which it was sown, and cutting out by the roots any thistles, docks, or other large grown weeds. After this the surface should be rolled once to smooth it for the scythe. This operation is best performed in the first dry weather of March. Some give a top-dressing of soot, gypsum, common lime, peat, or wood-ashes at this time or earlier; gypsum has been particularly recommended as a top dressing for clovers, and the other herbage legumes, because as their ashes afford that substance in considerable quantities, it appears to be a necessary ingredient of their food. Dutch ashes have been strongly recommended as a top-dressing for red clover, and they also contain gypsum; but where the soil is in good heart, and contains calcareous matter, any description of top-dressing, though it may be of advantage when it does not interfere with the general economy of the farm, cannot be considered as necessary. (*Sup. E. Brit.* art. *Agr.*)

The taking of the clover, or clover and rye-grass crop, is either by cutting green for soiling, by making into hay, or by pasturing. It is observed in *The Code of Agriculture*, that it is a most important point to ascertain, in what cases cutting, or feeding, is most beneficial. If fed, the land has the advantage of the dung and urine of the pasturing stock; but the dung being dropt in irregular quantities, and in the heat of summer, when it is devoured by insects, loses much of its utility. If the dung arising from the herbage, whether consumed in soiling, or as hay, were applied to the land, in one body, and at the proper season, the operation would be more effectual. The smother of a thick crop, continued for any time upon the ground, greatly tends to promote its fertility; and it has been pretty uniformly found, after repeated trials, upon soils of almost every description, that oats taken after clover that has been cut, either for soiling or hay, is superior to the crop taken after clover pastured by sheep.

Soiling is a term applied to the practice of cutting herbage crops green for feeding or fattening live stock. On all farms, under correct management, a part of this crop is cut green, for the working horses, often for milk cows, and, in some instances, both for growing and fattening cattle. There can be no doubt of the advantages of this practice, in regard to horses and cows; but for young, and for fattening beasts, a sufficient number of experiments are not known to have been yet made with any great degree of accuracy. Young animals require exercise in the open air, and, probably, will not be found to thrive so well in houses or fold-yards, during summer, as on pastures; and though in every case there is a great saving of food, the long, woody, and comparatively naked stems of the plants, with leaves always more or less withered, are perhaps not so valuable in the production of beef on fattening stock, as a much smaller weight of herbage taken in by pasturage. Milk-cows, however, are so impatient of heat and insects, that this way of feeding them, at least for a part of the day, in warm weather, ought to be more generally adopted; and the convenience of having working horses always at hand, besides that they fill their stomachs speedily, is of not less importance than economy. (See *Communications to the Board of Agriculture*, vol. vii. *Brown's Treatise on Rural Affairs*, vol. ii. *General Report of Scotland*, vol. ii. and iii.)

In feeding cattle with green clover, attention must be paid to prevent swelling, or boving, which is very apt to take place when they are first put on this food, especially if it be wet with rain or dew; and cattle are exposed to this danger, whether they are sent to depasture the clover, or have it cut and brought home to them, though, if the plants be somewhat luxuriant, the danger is greater in the former case. After being accustomed to this rich food for a few days, during which it should be given rather sparingly, the danger is much diminished; but it is never safe to allow milch cows, in particular, to eat large quantities of wet clover.

(To be continued.)

The Military Bounty Lands of Illinois.

(Concluded from p. 355.)

Settlements have been but so recently formed upon this tract that it is impossible to say from actual experiment to what other agricultural product it is particularly adapted. But we may safely assume that whatever is indigenous to the richest land of the same latitude will here find a kindly soil.

With regard to the prairies, which in many parts, particularly in the north, are much too extensive, and are on that account at present rather drawbacks to the settling of the country, it is a well known fact, that the increase of settlements diminishes their size by encouraging the growth of timber. Indeed, if the annual fires that now pass over the country could be checked, a growth of timber would soon cover the face of it. I am told that if a prairie be ploughed so as to destroy the grass, and not subsequently cultivated, the seeds of various trees that had remained dormant, vivify and produce a thrifty grove. They afford at present an inexhaustible range for cattle. It is seldom necessary to feed stock sooner than Christmas. The rushes, which abound in patches, furnish a green and succulent food till then. For the raising of stock of every description, cattle, horses, and sheep, they are therefore peculiarly adapted: uniting as they do the advantage of a grain and grazing country. Horses and horned cattle, may be driven to the Eastern market, or carried in flat boats (the latter either alive or salted) to New-Orleans. Cheese, I know has in some instances been made extensively, and advantageously. In fact, it is impossible to enumerate the various resources that may be derived with industry and ingenuity from these prairie regions. The raising of bees alone would afford a moderate income, without interfering with the other pursuits of an industrious family. The abundance and variety of flowers, to which I have already alluded, furnishes food to prodigious numbers of these insects. And wild honey of the richest flavour is to be met with in profusion in every cabin. Wherever the bees have been domesticated, they amply repay the trouble. One of the most respectable and intelligent gentlemen on the tract, told me that 19 hives yielded him last autumn four barrels of strained honey, and 200 pounds of wax. The honey he could sell readily for 16 dollars per barrel, the wax for 20 cts. per pound, making $104. The expense of taking and straining the honey, and making the wax, simply the amount of four or five days labour. This business could of course be increased at pleasure. The planting of the locust, and white mulberry would afford a certain income to those who are capable of carrying their views far enough forward to make the experiment.

Of the frequency of streams upon this tract, I have already spoken. The traveller crosses them at short intervals, refreshed by their coolness, and delighted with the transparency of their waters. The great majority of these are nothing more than rivulets. Their importance, nevertheless, is sufficiently obvious. Springs are proportionally abundant, and are found on nearly every farm. Several of the larger streams are said to afford good mill seats. The abundance of coal, however, seems to indicate the propriety of erecting steam mills. I have no doubt, that at this time there are many places where either a grist or saw mill of this description would do a profitable business.

The climate and health are subjects upon which, as is natural, there is a great diversity of opinion; a longer experience, and more accurate observation are necessary, before either can be decided. The general opinion seems to be that the mean temperature does not differ from that of the same latitude at the East. The weather, however, is more variable, and subject to more sudden alternations of heat and cold. The openness of the country, too, gives a scope to the winds, which possess from that circumstance a keenness felt no where else. As it regards health, I think I am authorised in being more decided. I doubt whether there is better health enjoyed in any portion of the United States. In fact, it is impossible to see any reason why it should be otherwise. The country, (I speak of the upland,) is open and rolling; no dense swamps or extensive morasses afford decaying vegetable matter to be the fruitful source of sickness. That bilious complaints do frequently attack settlers, during the first season, I will admit. But a few considerations will satisfy any one, that similar exposure and privations would produce sickness in any climate. Inhabitants of the East have no idea of the recklessness with which hundreds of families annually desert their houses, and go in quest of new settlements. A report is circulated through a neighbourhood of Kentucky or Tennessee, that certain parts of Illinois offer great inducements to emigrants; upon the strength of this a few families, or a single one, as the case may be, of whom perhaps not one knows aught of the promised land, but what common fame has told him, sell out their property, put their possessions, according to their circumstances, into a two, a four, or a six horse wagon, and undertake, with the utmost unconcern, a journey of from four to eight hundred miles, passing by the labours and exposure of the journey. The emigrant upon reaching his place of destination, previous to his selecting a permanent residence, pitches his tent, empties into it the contents of his wagon, and here his family of both sexes, and all ages, remain at the most inclement season of the year, exposed to every vicissitude of the weather from two to four months, until a permanent residence can be selected, the land bought, and a house erected. For the want of enclosures, the working cattle are constantly straying off, and in pursuing them through the wet grass, the men and boys get their clothes saturated with moisture, which the labours of the day give them no opportunity to dry. It surely cannot be attributed to the climate, that sickness should be the result of such exposure. To such an origin, in fact, I traced the greater part of the sickness of which I heard. But I found where these causes did not exist; when the emigrant had got his family comfortably settled; or had prepared suitably for their reception, that health was enjoyed to as great a degree as in any region whatever. It is well known that a temporary derangement of health is often the result of change of situation, independent of the salubrity of the climate moved into compared with that left. Supposing, however, for a moment, that bilious complaints are more common in this climate than at the East, it is likewise exempt from certain maladies which are dreadfully destructive there. Pulmonary affections, for instance, are almost unknown. In fact, I have known cures of what were considered confirmed consumptions, effected by a residence here. When we consider the multitudes of this destroyer's victims, along our Atlantic shores, I think we may safely place the fact of our being here exempt from its ravages, as a set off against the spectre of fever and ague, which occurs to the imagination of the timid at every mention of the Western country.

Some of the above advantages, it is obvious that this tract enjoys in common with the rest of the state, and others are peculiar to itself. The latter have appeared to me sufficiently marked to justify the preference which I have given it. The time, however, seems to have arrived when the claims of the state of Illinois upon public attention begin to be recognized. Settlers are flocking into it in numbers, unexampled, even in the history of Western population. And I doubt not that its future advance will be steady and rapid. The settler is here spared the severe toil of removing the dense forests with which most unsettled countries are covered, and which render the opening of a farm the work of a life time. Thousands of acres here are ready for the plough, and a single season puts the emigrant in as complete possession of his farm, as though it had been tilled for a century. The unfounded prejudice so long entertained against prairie countries has entirely disappeared. The experiment has even been made of venturing at once into the midst of the prairie, and submitting to the trifling inconvenience of carting their rail timber a few miles, depending for fuel upon coal, and knowing that a few years will raise around them timber sufficient for protection, for ornament, and for use. If, indeed, the thousands who are now toiling to derive a scanty subsistence from the barren and exhausted soil east of the Alleganies, in utter ignorance of the capabilities of a fertile country, could but become convinced of the ease with which their families might here be supported in substantial affluence, I am almost inclined to think that an unanimous emigration would be the result. To contribute to a correct appreciation of the advantages of one portion of our rich and happy country is the object of this communication, and if this object shall be in any degree answered, it will be a source of gratification to the author.

(From the New England Farmer.)

SWAMP MUD FOR MANURE.

Mr. Fessenden—In my last note to you, I promised to give some further account respecting the decayed vegetable matter, generally called swamp muck, which many sections of our country abound with. The use of which, applied on an upland loam, gravel, or sandy soil, will pay the expense of labor in removing it, two for one the first year, as the statement of facts hereafter annexed, fully proves.

The last fall I carted several loads of muck on to a knoll of loam, and put it in one heap, though I think it would have been better to have dropped one load only in a place. In the spring, prior to planting corn, the muck was spread and ploughed under. The crop of corn where the muck was spread, was large. I thought larger than where barn yard manure was put. A neighboring farmer has made use of muck for several years. The first year he thought it equal to barn yard manure, and its effects were perceivable a much longer time. The soil on which the muck was put, was a warm gravelly loam. The muck was used by another neighboring farmer, for manuring corn in the hill, which was used in the following manner:—A row of each alternately, one of muck, one of barn yard manure, and one of hog manure. He assured me the corn was much the best manured with the muck. The soil a sandy loam.

Mr. Daniel Bloomer, when residing in North Salem, West Chester county, in the year 1796, had four acres of gravelly loam of equal quality, which he planted with corn. Prior to planting the corn, he applied fifty loads of muck per acre, on two acres; these two acres produced *one hundred and twenty* bushels; the other two acres yielded only sixty bushels. The next spring these four acres were sowed with oats and grass seed. The oats were more than twice as large on the two acres dressed with muck as they were on the other two. The grass for the four succeeding years produced in much the same ratio. I might relate other improvements of a similar kind. It is presumed that every intelligent, industrious farmer will be satisfied of the utility of muck as a manure. Those farms which are interspersed with swamps of muck and uplands either of loam, sand, or gravel, may be made, at an expense of five to ten dollars per acre, capable of paying an interest annually of one hundred dollars per acre. It is thought that ten dollars, expended with economy, will, in most circumstances, be sufficient to cart and spread one hundred loads of swamp manure on an acre.

Those who own farms, situated as just stated, now valued at $25 per acre, have only to say the word, and go forward, for one or two years, to convince themselves and their neighbors they have farms intrinsically worth one hundred dollars per acre. Why so? it may be asked. Because they will pay a nett profit over and above all expense, amounting to the interest of one hundred dollars. Look for a moment at the statement of Mr. Bloomer. He tells you he applied fifty loads of muck in the spring, (though the fall is a better time, and the muck is better to be laid on lands in the fall,) per acre, which cost him five dollars. On this acre he had an excess of corn of thirty bushels, at fifty cents per bushel, which would leave ten dollars, nearly, to pay the interest of $150 at 7 per cent., and this only for the first year. It is worthy to consider, by taking the muck from the lowlands, that ditches may be made or improved, so that the lowlands may be made to produce a bountiful crop of timothy and red top, &c. &c. It is desirable that farmers in different parts of the country would try the utility of the muck on the different summer crops, and inform the public of the results of their labor, through your useful New England Farmer, all of which are highly beneficial to us farmers.

W. H.

ON OYSTER SHELLS.

Fresh oyster shells when ground, become valuable manure—they convey not only animal, saline and calcareous matter to the land, but mechanically separate its parts. In England and Pennsylvania, they are frequently so applied. It is not more absurd to prescribe the same nostrum for all diseases, than to apply the same manure to every soil. A skilful farmer consults the constitution of his land, ascertains its constituent parts, and endeavours to supply its deficiencies by artificial means. If it require lime in its caustic state, he will burn marine shells, and thus obtain one of the most pure, and active limes which nature can afford, not only without sand, but free from all deleterious matter with which stone-lime is frequently combined. It is obvious that if the shells have been long exposed to the atmosphere, the animal and saline particles will have escaped, leaving nothing but calcareous matter to operate upon the ground—shells which have been so exposed are more cheaply reduced to powder by fire, than by any other means, and for the purposes of caustic lime, they should be selected always. It has been found that *recent* shells, or those which have been *roasted* before exposure in the kiln, become black, and so difficult to be slaked, that they remain beneath the soil, unaltered for a season and often more. It is *probable* that the animal matter distributed throughout their pores, when exposed to sudden heat becomes carbonized, and thus excludes the moisture necessary to reduce them. The chemical agency of lime in exciting fertility has been so fully explained by Sir Humphrey Davy, its sensible effects upon soils are now so completely established by practical men, that there is scarcely a farmer who is ignorant of its excellence, yet half of the value is generally lost through inattention to the time and mode of its application.

If you are clearing, land, or can by other means obtain brush conveniently, throw it in a pile, and over it put a quantity of shells, then set fire to the brush, add more brush and more shells alternately, until all are in the mass.

The whole mass will soon take fire and the oil in the shells will hasten the combustion. A pile of two or three thousand bushels will burn about twenty-four hours, when they will be in a state to crumble when trod on; they may now be carted out on the land, and ploughed in at tho rate of from three to five hundred bushels to the acre. In the course of two or three years, they will be perfectly mixed with the soil; and are believed to be much more beneficial than when reduced to lime, as a large proportion of the oily parts still remain.

It is also believed, that shells reduced to a powder by means of a mill, would be still more beneficial to the sand land than those which are burnt.

(From the Southern Agriculturist.)

Calculation of Profit on a Rice Mill, in Carolina.

"—— *10th July*, 1829.

Mr. Editor,—The subjoined calculation is among the papers of a highly respectable Rice-planter, deceased, and is sent to your useful periodical for publication.

I was one of those, sir, who heard the lucid observations of that lamented friend of his country, the late Gen. Thomas Pinckney, deceased, at the discussion of the Rice-mill question, before the Agricultural Society in Charleston; and I well remember the drift of his remarks, which went to prove that the toll exacted from the rice-planter is too great. I have always regretted that I did not take notes on several points of that admirable speech, namely, his calculation of the cost and interest on the capital necessary to be invested in a rice-mill, and his calculation of the expenses and profit on these establishments.

Perhaps, sir, some of the gentlemen present may recollect sufficiently the detail of these to be able to place them upon record in your work, as well as the statement of his own loss in rice beat at a toll-mill, and then just received from his factor; but the inimitable manner of treating this question; the calm, clear, deep reasoning on a subject so important to the country, and which had been so angrily misstated in the public prints, and, of course, misunderstood; the fixed attention given to every word that fell from his lips; the conviction that followed every explanation he gave, can only be estimated by those who had often seen him in this his favourite Society.

Mr. Editor, I fear "we shall never look upon his like again," for where shall we find another, who, with a mind so refined as his, with manners so polished, with a conception of his country's interest so perfect, with an intellect so capable of embracing at once the most comprehensive subjects, as well as of selecting those of minor importance as they floated by, and converting all to the public good?—Where shall we find a man of motives so pure, so deserving of the full confidence of every one of his fellow-citizens, and so perfectly possessing it? Wise without conceit, and above all, without the blemish of *opiniatreté!* This is a character seldom met with in any country, and the less likely to be found hereafter among us, as the opportunities of acquiring that kind of education which en*larges* the mind, are fewer than in times that are past.

I am, sir, with my best wishes for your success, but at the same time *recalling* this subject of rice-mills to your notice, yours, &c.

A Rice-planter of South Carolina.

Calculations of the Profit on a Rice-Mill.

Nov. 15, 1825.

Dear * * * *,—The questions you ask are, what I think of the enclosed estimate of the expense of building a rice-mill, and whether $10,000 can be made from one, per annum? You state * * * * * * *'s mill, in 1823 and 1824, beat, from October to September, the following year in common tides, 120 barrels, but in good tides, 170 barrels per week; having been informed by a proprietor of this fact.

From October to September, are eleven months; but as that was an extraordinary season, it will be safer to reckon only from the first of October to the 20th July, which gives 293 days; 41 days taken off for Sundays, gives 252 working days.

You state that the mill beat 120 barrels in common tides, and 170 in spring tides. Let us average these at 132 barrels per week. This would give for each day in six, 22 barrels, and for 252 working days, a total of 5544 barrels of rice, beat at tho mill during the season. On this amount, the toll, at 9 per cent, is 499 barrels. We may with safety call this number "*for short*," as the negroes say—500 barrels.

500 barrels of rice of 600 lbs. nett wt. at $2½ per 100, are worth $15 per barrel, or		$7,500
The cost of barrels I take to be this: staves being got at $5¼, $6 and $7 per thousand, then 1000 staves, which will make 40 barrels,	6 50	
Cost of hoops and heading,	2 50	
Half a month of a cooper,	6 00	
	15 00	
Profit per barrel equal to 50 cents,	20 00	
	35 00	
The value of 40 barrels at 87½ cents, *the selling price,*	35 00	
If the mill supplies 3500 barrels, and the profit on each is 50 cents, the total profit on barrels will be		——1,750
Freight of 5544 barrels, at 25 cents per barrel,		1,386
Profit without deducting charges,		$10,636

I tell you candidly, my dear * * * * *, that of this sum I would not like to part with one cent. In order, therefore, to pay the charges of working the mill, I suggest to you to put on the place, stock sufficient for that purpose. You know the advantage of keeping a large stock of cattle, where abundance of rice-flour can be got to fatten them up for market, and at so short a distance from town. Let us suppose then, that you put on the mill tract 200 head of cattle, 124 head of sheep, and a stock of hogs.

From 200 head of cattle you may so arrange as to have—

Stock at first.	And to keep back yearly.	And to sell yearly.		
150 Milch Cows,	38 Calves.	100 Calves *a*	6	600
25 Oxen,	138 Cows & Bulls.	25 Oxen,	20	500
12 Yearlings,	12 2 year old's.	12 Cows,	20	240
13 2 year old's.	12 Yearlings.	Butter, at 20 lbs. per day, from 100 Cows; see below*		926
200 head.				$2,265

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* Milk 180 quarts per day, *a* 12 quarts per pound of butter, (I calculate too largely in this I fear,) equal to 20 lbs. per day, or for 185 days, 3700 lbs. *a* 25 cents.

124 head of Sheep.

Keep yearly.	*Sell yearly.*			
65 Sheep.	15 Fat Sheep,	*a* 5	75	
20 Wethers.	20 do. Wethers,	5	100	
40 Lambs.	40 Lambs,	3	120	
				295

125 head.

A stock of Hogs.

Keep.	*Sell.*		
10 Sows.	30 head for	300	
50 Barrows, (2 years.)	50 do. for	100	
50 Sow Shoats.			400
50 Young Barrows, (1 year.)			
			$2960

To which add this sum over the $10,000 of gross profit, 636

$3596

This, with the chance of selling rice at $3, will, in my opinion, pay the charges of the mill. If it does not, what rate of interest will it give you?

Yours, &c. * * * *.

HORTICULTURE.

PRIVATE KITCHEN GARDENS.

To those who reside in the country, a well cultivated kitchen garden is a most essential object, with a view to health, comfort, and economy.

It requires attention to the following particulars: 1. Soil; 2. Trenching, 3. Manures; 4. Vermin; 5. Rotations; and 6. Articles to be raised.

1. It is found that a sandy loam, is not only the best soil for a kitchen garden, but that the smaller the grains of sand, of which the soil is composed, the better, as by that means it is capable of retaining a greater quantity of moisture, in dry seasons. A free marl is likewise well calculated for garden culture. The addition of a moderate quantity of clay, and of oxide of iron, is of much use in promoting fertility. It is fortunate, however, when a garden contains a variety of soils; as some vegetables require a strong and heavy soil, and do not thrive in a light one. Where the subsoil is wet, draining is indispensable.

2. Preparing the soil, and trenching it to the proper depth, is not always sufficiently attended to in garden culture. The soil ought to be from one foot and a half, to two feet and a half deep, particularly where tap-rooted vegetables are cultivated. The roots can thus, with greater facility, extend their fibres, in all directions, in search of vegetable nourishment, and a reservoir is provided, for any superabundant moisture, which may be occasioned by heavy rains, where it is retained till wanted.

3. The species of manure must depend upon the soil. Rotten dung is preferred by gardeners, as, in the course of fermentation, the seeds of weeds, and the larvæ of insects are destroyed; and the more putrid the dung, the greater effect it has in promoting the rapid growth of the plant. Seaweed, where it can be procured, is an excellent manure for garden crops, in particular for onions. Soaper's waste, used in moderation by itself, or in a compost with earth, is an excellent manure for garden soils. This substance, not only destroys insects and their larvæ, but, consisting principally of calcareous matter, every species of vegetables is greatly improved in quality, where it is applied. Cowdung, mixed with water, is a good manure, when frequently applied in a liquid state.

4. Slugs and snails are very destructive in a garden. Slacked lime, or sifted coal ashes, spread on the surface, or laid in rows, in various places, are useful in destroying them.

5. Skilful gardeners recommend attention to a rotation of crops, and occasionally fallow portions of their gardens, or lay them down with clover, which seldom fails to restore them to their former fertility. The most experienced horticulturists are now agreed, that even the currant, gooseberry, and raspberry quarters should be changed every seven or eight years, and the strawberry ground every four or five years. The chief market gardeners near Edinburgh, think it essential to adopt a certain rotation of principal crops, to be afterwards stated.

6. With respect to the articles cultivated in kitchen gardens, there are above eighty different sorts, raised even in Scotland, notwithstanding its inferiority of climate; the mere enumeration of which, with some remarks on their nature and quality, and mode of culture, would fill several pages, and must therefore be omitted in so limited a work.

(From the New England Farmer.)

SWEET LOCUST, OR THREE THORNED ACACIA.

In consequence of the recommendation of the Three thorned, or horny locust, by Mr Buel of Albany, as the plant which he thinks "will be found to surpass all others for live fences," we have been induced to copy the following from *Michaux's North American Sylva.*

The Sweet Locust belongs peculiarly to the country west of the Alleghany mountains, and it is scarcely found in any part of the Atlantic states, except in Limestone valley and its branches, which lie between the first and second ranges of the Alleghanies, beginning near Harrisburgh in Pennsylvania, in the latitude 40° 42' and extending from northeast to southwest into the state of Virginia. The soil in this valley is generally very substantial. In the fertile bottoms, which are watered by the rivers emptying into the Mississippi, in the Illinois country, and still more in the southern parts of Kentucky and Tennessee, the Sweet Locust is abundant. It commonly grows with the black walnut, shell bark, hickory, red elm, blue ash, locust, box, elder, and coffee tree, and forms a part of the forests that cover the most fertile soils. In different parts of the United States, this species is called indifferently, Sweet Locust and Honey Locust; the French of Illinois call it Fèvier.

In situations the most favorable to its growth, such as I have observed on the banks of the Ohio, between Gallipolis and Limestone, the Sweet Locust attains a very ample size. I have measured several stocks which were three or four feet in diameter, and which appeared to equal in height the loftiest trees of those immemorial forests. Some of them had the trunk undivided for forty feet.

The Sweet Locust is easily known by its bark, which at intervals of a few inches, detaches itself laterally in plates of three or four inches wide and two or three lines thick, and by the form of its trunk, which presents three or four crevices of inconsiderable depth, opening irregularly from the bottom towards the top. The large thorns which cover the branches, and frequently the trunk of young trees, afford another very distinct character. These thorns are sometimes several inches long, ligneous, of a reddish color, and armed, at some distance from the base, with two secondary thorns about half the size of the first.

The leaves of the Sweet Locust are pinnated, and composed of small, oval, serrate, sessile leaflets. This foliage is elegant, and of an agreeable tint, but it is thin, and scarcely obstructs the passage of the sunbeams. It is shed annually at the approach of winter.

The flowers are small, not very conspicuous, and disposed in bunches. The fruit is in the form of flat, crooked, pendulous pods, from twelve to eighteen inches long, and of a reddish brown color. The pods contain brown, smooth, hard seeds, enveloped in a pulpy substance, which, for a month after their maturity, is very sweet, and which then becomes extremely sour. Beer is sometimes made by fermenting the pulp while fresh, but the practice is not general, as the apple tree, and peach tree, particularly the last, have become common in the Western country, and afford a much superior beverage.

The perfect wood or heart of the Sweet Locust nearly resembles that of the locust; but its grain is coarser, and its pores more open; in these respects it is more strikingly characterised even than the wood of the red oak. When perfectly seasoned, it is extremely hard. It is little esteemed in Kentucky, where it is more employed, and consequently can be better appreciated than elsewhere. It is used neither by the carpenter nor the wheelwright; it is sometimes taken by the farmers for rails to fence their fields, but only when they are unable to procure better wood. It is found by experience to be far inferior to the wild cherry and black walnut for cabinet making. The only destination for which it appears to be peculiarly adapted, is, the forming of hedges, which would be rendered impenetrable by its long thorns.

The Sweet Locust has been cultivated for many years in Europe. It flourishes, blooms, and yields seed in the climates of London and Paris, but its vegetation is less active than in the south of France. No insect attacks it.

RURAL ECONOMY.

(From Cobbett's Cottage Economy.)

To the Labouring Classes of this Kingdom, (England.)

(Continued from page 358.)

13. The *education* that I have in view is, therefore, of a very different kind. You should bear constantly in mind, that nine tenths of us are, from the very nature and necessities of the world, born to gain our livelihood by the sweat of our brow. What reason have we, then, to presume, that our children are not to do the same? If they be, as now and then one will be, endued with extraordinary powers of mind, those powers may have an opportunity of developing themselves; and, if they never have that opportunity, the harm is not very great to us or to them. Nor does it hence follow, that the descendants of labourers are *always* to be labourers. The path upwards is steep and long, to be sure. Industry, care, skill, excellence in the present parent lays the foundation of *a rise*, under more favourable circumstances, for his children The children of these take *another rise;* and, by and by, the descendants of the present labourer become gentlemen.

14. This is the natural progress. It is by attempting to reach the top at a *single leap* that so much misery is produced in the world; and the propensity to make such attempts has been cherished and encouraged by the strange projects that we have witnessed of late years for making the labourers *virtuous* and *happy* by giving them what is called *education.* The education which I speak of consists in bringing children up to labour with *steadiness,* with *care,* and with *skill*; to show them how to do as many useful things as possible; to teach them to do them all in the best manner; to set them an example in industry, sobriety, cleanliness and neatness; to make all these *habitual* to them, so that they never shall be liable to fall into the contrary; to let them always see a *good living* proceeding from *labour,* and thus to remove from them the temptation to get at the goods of others by violent or fraudulent means, and to keep far from their minds all the inducements to hypocrisy and deceit.

15. And, bear in mind, that if the state of the labourer has its disadvantages when compared with

other callings and conditions of life, it has also its advantages. It is free from the torments of ambition, and from a great part of the causes of ill-health, for which not all the riches in the world and all the circumstances of high rank are a compensation. The able and prudent labourer is always *safe*, at the least, and that is what few men are who are lifted above him. They have losses and crosses to fear, the very thought of which never enters his mind, if he act well his part towards himself, his family and his neighbour.

16. But, the basis of good to him, is, *steady and skilful labour*. To assist him in the pursuit of this labour, and in the turning of it to the best account, are the principal objects of the present little work. I propose to treat of Brewing Beer, making Bread, keeping Cows and Pigs, rearing Poultry, Rabbits, Pigeons, keeping Bees and the uses of the Honey; and to all these things, too, in a mere Cottage Establishment; and to show, that while, from a very small piece of ground, a large part of the food of a considerable family may be raised, the very act of raising it will be the best possible foundation of *education* of the children of the labourer; that it will teach them a great number of useful things, *add greatly to their value when they go forth from* their father's home, make them start in life with all possible advantages, and give them the best chance of leading happy lives. And, is it not much more rational for parents to be employed in teaching their children how to cultivate a garden, to feed and rear animals, to make bread, beer, bacon, butter, and cheese, and to be able to do these things for themselves, or for others, than to leave them to prowl about the lanes and commons to mope at the heels of some crafty, sleek headed pretended saint, who while he extracts the last penny from their pockets, bids them be contented with their misery, and promises them, in exchange for their pence, everlasting glory in the world to come? It is upon the hungry and the wretched that the fanatic works. The dejected and forlorn are his prey. As an ailing carcass engenders vermin, a pauperized community engenders teachers of fanaticism, the very foundation of whose doctrines is, that we are to care nothing about this world, and that all our labours and exertions are in vain.

17. The man, who is doing well, who is in good health, who has a blooming and dutiful and cheerful and happy family about him, and who passes his day of rest amongst them, is not to be made to believe, that he was born to be miserable, and that poverty, the certain reward of laziness, is to secure him a crown of glory. Far be it from me to recommend a disregard of even the outward observances of the ceremonies of religion; but, can it be *religion* to believe, that God has made us to be wretched and dejected, and to regard as marks of his grace the poverty and misery that invariably attend our neglect to use the means of obtaining a competence in worldly things? Can it be *religion* to regard as blessings those things, those very things, which God expressly numbers amongst his curses? Poverty never finds a place amongst the *blessings* promised by God. His blessings are of a directly opposite description; flocks, herds, corn, wine and oil; a smiling land; a rejoicing people; abundance for the body and gladness of the heart: these are the blessings which God promises to the industrious, the sober, the careful, and the upright. Let no man, then, believe, that to be poor and wretched is a mark of God's favour; and let no man remain in that state, if he, by any honest means, can rescue himself from it.

18. Poverty leads to all sorts of evil consequences. *Want*, horrid want, is the great parent of crime. To have a dutiful family, the father's principle of rule must be *love* not *fear*. His sway must be gentle, or he will have only an unwilling and short-lived obedience. But, it is given to but few men to be gentle and good-humoured amidst the various torments attendant on pinching poverty. A competence is, therefore, the first thing to be thought of; it is the foundation of all good in the labourer's dwelling; without it little but misery can be expected. "*Health, peace* and *competence*," one of the wisest of men regards as the only things needful to men; but the two former are scarcely to be had without the latter. *Competence* is the foundation of happiness and of exertion. Beset with wants, having a mind continually harassed with fears of starvation, who can act with energy, who can calmly think? To provide a *good living* therefore, for himself and family, is the *very first duty* of every man. "Two things," says Agur, "have I asked; deny me them not before I die: remove far from me vanity and lies; give me neither poverty nor riches; feed me with food convenient for me: lest I be full and deny thee; or lest I be poor and steal"

19. A *good living*, therefore, a *competence*, is the first thing to be desired and to be sought after; and, if this little work should have the effect of aiding only a small portion of the labouring classes in securing that competence, it will afford great gratification to their friend. Wm. Cobbett.

Kensington, July 19th, 1821.

LADIES' DEPARTMENT.

(From the Journal of Health.)

HEAD DRESS.

Herodotus, on visiting a field of battle, where the slain of the Egyptians and Persians had been collected in separate piles, was struck with the difference in the thickness and firmness of the skull in the individuals of the two nations. That of the former being so hard as to be fractured with difficulty, while that of the latter was so thin and weak as to be readily broken by a small pebble. This difference the historian accounts for from the circumstance of the Egyptians being accustomed from infancy to go bareheaded, whereas the Persians wore constantly thick and heavy tiaras or turbans.

Though we cannot agree with Herodotus that the fragile skull of the latter was owing entirely to their enormous head-dresses; nevertheless, we are persuaded that the covering mankind are in the habit of wearing upon the head, has no little influence upon their health and comfort.

There is no part of the body which suffers more from heat and pressure than the head—no one, therefore, which requires to be kept cooler and less encumbered. Neither of which important requisites are sufficiently obtained, in the male sex particularly, by the hats now in fashion.

When we refer to the general experience of antiquity, we find it to be decidedly in favour of the precept, that the head should be lightly covered. The care which nature herself has taken to protect this portion of the body from the influence of external agents, by clothing it with hair, renders, indeed, under ordinary circumstances, any species of artificial covering unnecessary. It is probable, as a general rule, excepting when the natural covering is unusually scanty or entirely wanting, that, not only the cumbrous wigs, powder and pomatum of former times, but even the hats, caps and bonnets of our own day, might, with great propriety, be dispensed with.

The great inconvenience which arises from keeping the head warmer than nature intended, is, that in youth, by causing an increased amount of blood to be sent to this part, not only is the scalp more liable to be the seat of eruptive diseases, but even the brain itself is exposed to injury, from slight exposures to cold, terminating frequently in incurable dropsy: while, at a more advanced age, a short exposure, without the usual protection, will almost invariably occasion a rheumatic affection, or what is ordinarily termed a cold.

All expose the face with impunity in the coldest weather, but every one is aware of the risk which is incurred by remaining bareheaded, for a short time, in the open air, during the cooler periods of the day or year. This difference is to be attributed solely to the extreme care which is taken, from birth, to protect the head from the operation of cold.

It is, perhaps, not generally known, that a covering for the head is far more necessary during exposure to the direct rays of the sun in summer, and in hot countries, than during dry weather in winter, or in cold and temperate climates. From the first, apolexy, inflammation of the brain, and even sudden death, have been known to result; whereas, from the latter, we are convinced no one would experience any inconvenience, provided the practice of going with the head bare were commenced from infancy. Even the effects of extreme heat are more effectually guarded against by an umbrella or parasol, than by the covering usually worn.

It may be well here to observe, that black hats afford but little protection in summer. Instead of reflecting the heat, they admit it to act even more strongly upon the head. By those who are much exposed to the sun, white or light-coloured hats ought therefore, always to be preferred.

Too heavy or tight a covering for the head invariably gives rise to a headache more or less intense. There are few who have not experienced the martyrdom inflicted by a new hat or bonnet of too restricted dimensions. It may be compared, in fact, to that species of torture, practised in former ages, by tying a cord firmly around the temples.

We wish now not to be misunderstood—we do not pretend to advise any of our readers, either male or female, old or young, so far to deviate from general usage as to walk bareheaded in the open air: we merely desire to point out to them the propriety of wearing hats or bonnets constructed of such materials as will render them perfectly light and easy, and prevent the head from being kept unduly warm.

For an infant, from the period of birth, until the growth of its hair is sufficient to render unnecessary artificial protection of any kind, a thin, light, and soft cap should constitute the only head-dress. It is all-important that the material of which it is formed be soft and perfectly smooth. A lace or embroidered cap may be very beautiful, and well adapted to gratify the parents' pride of dress, but is an improper covering for an infant's head. The roughness and harshness of its surface is calculated to fret and irritate the delicate skin with which it is in contact, and if not productive of eruptions and sores, cannot fail to occasion some degree of pain or uneasiness to the wearer. The cap should never be allowed to cover or confine the ears; otherwise, by keeping the latter unnecessarily warm, and improperly compressing them against the sides of the head, it is apt to occasion pains and inflammation of these organs, or a disgusting, sometimes dangerous, soreness and running behind the external ears.

As soon as the head has become well covered with hair, the cap may be dispensed with during the day as well as at night; and, when the child is taken out, a very light and easy hat may be worn, rather, however, in compliance with the customs of society, than as a necessary protection.

To Perfume Linen.

Rose leaves dried in the shade, cloves beat to a powder, and mace scraped; mix them together, and put the composition into little bags.

To Clean Gold and Silver Lace.

Sew the lace in linen cloth, and boil it in a pint of water, and two ounces of soap; and then wash the lace in water.

MISCELLANEOUS.

(From the American Turf Register and Sporting Magazine, No. 5.)

NATURAL HISTORY.

The animal represented at the head of our present article, is the dusky wolf of Mr. Say. Our intention, however, is to give an account of the common wolf, which we find classed by zoologists, as follows:

Class, Mammalia, &c.—*order*, Carnivora—*Family*, the *Cynosii* or *canine race*—*Genus*—*Canis*, Lin. &c. &c. (See our second number, page 89.)

COMMON WOLF, (*C. lupus*)

The wolf is usually of a pale grey colour, with a cast of yellow, but varies considerably in its shadings in different parts of the world; thus, some in France and Germany are yellow; many of those in Russia are white; in this country, and particularly those that inhabit Canada, they are of a yellowish brown colour; and those from the Cape of Good Hope are grey striped with black. The wolf found in Pennsylvania has more of the reddish brown colour, the hair being tipped with black, but especially over the fore-shoulders and sides.

Though in appearance and habits, nearly related to the dog, the wolf is distinguished by its superior size, its more muscular and robust body, and the greater breadth of the upper part of the face; at the same time that its whole form is longer, and the oblique position of its eyes, the green colour of its eye-balls, and its coarser coat give it an air of greater fierceness. Its internal structure is perfectly analogous to that of the dog; and from the union of the two species a fertile offspring has been occasionally produced.

The wolf occurs in almost every temperate and cold climate in the world. It is endowed with great strength, especially in the fore parts of the body, and in the muscles of the neck and jaws, so that it can bear away a sheep in its mouth, and yet outstrip the shepherd. It bites fiercely, especially when its victim is incapable of making resistance; but it is wary and even timid with a formidable adversary. It has a quick ear, a penetrating eye, and above all, an exquisite sense of smell; for it scents carnage at the distance of a league, and traces living animals, though removed from it by a long interval. It issues from the forest on the windward side, and halts about the outskirts to receive the effluvia of living or dead bodies. In default of better fare, it greedily devours the most putrid carcasses, or any garbage that chance may throw in its way; its smell is extremely offensive. It is capable of supporting long abstinence, and will sometimes swallow earth or mud, to relieve the uneasy sensations of hunger; but when these sensations become imperious, it is ravenous and desperate, and will attack children, women, and even men. Such of them as have once tasted human flesh seem to give it the preference to every other; will attack the shepherd rather than the flock, and will hover in the rear of armies, to glut themselves with the blood of the slain.

When satiated with food, or fatigued with running, the wolf indulges in a light sleep, though more commonly during the day than at night. It drinks frequently, and, if regularly supplied with water, is capable of fasting four or five days. The female breeds only once a year, goes sixty-three days with young, brings from five to nine whelps at a litter, whose eyes are not open till about the twelfth day, suckles them for some weeks, teaches them to eat flesh by chewing it before she presents it to them, then fetches them field mice, partridges, chickens, &c. which she shares among them, and lastly trains them to cater for themselves; all which is accomplished in the course of ten or twelve months. Should they be threatened with an attack, she defends them with great intrepidity; though on other occasions she is rather timid. The young attain their full growth in their third year; the old animals become grey, and seldom live more than fifteen or twenty years.

In the populous districts of our country, the number of wolves have been greatly reduced. "Formerly," says Dr. Godman, "the common wolf was to be found in considerable numbers throughout a great extent, if not the whole of North America; at present it is only known as a resident of the remote wooded and mountainous districts where man has not fixed his abode, nor laid bare the bosom of the earth to the enlivening radiance of the sun." Amidst the constant warfare of mankind against the wolf, it is not surprising that the character of the species should be that of ferocity, cunning, and suspicion; that they should be with difficulty tamed; and that the human race should be to them the object of dread and aversion. Yet there are instances of wolves having been domesticated to such an extent, as to exhibit the greatest attachment to man—as great as can be shown by a dog. Mr. F. Cuvier gives a very interesting account of a tame wolf, which had all the obedience towards, and affection for his master, that the most sagacious and gentle of domestic dogs could possibly evince. He was brought up in the same manner as a puppy, and continued with his original owner, till he was full grown. He was then presented to the Menagerie at Paris. For many weeks he was quite disconsolate at the separation from his master, who had been obliged to travel; he would scarcely take any food; and was indifferent to his keepers. At length he became attached to those about him, and he seemed to have forgotten his old affections. His master returned, after an absence of eighteen months; the wolf heard his voice amidst the crowd in the gardens of the Menagerie, and being set at liberty, displayed the most violent joy. Again was he separated from his friend; and again was his grief as extreme as on the first occasion. After three years absence, his master once more returned. It was evening, and the wolf's den was shut up from any external observation; yet the instant the man's voice was heard, the faithful animal set up the most anxious cries; and the door of his cage being opened, he rushed towards his friend—leaped upon his shoulders—licked his face—and threatened to bite his keepers, when they attempted to separate them. When the man left him, he fell sick, and refused all food; and from the time of his recovery, which was long very doubtful, it was always dangerous for a stranger to approach him. He appeared as if he scorned any new friendships.

This is very remarkable, and as far as we know, a solitary instance of the wolf possessing the generous, constant, unshaken attachment of the dog to any individual of the human species. And yet the scarcity of these instances may be attributed to our imperfect knowledge of the history of the domestication of the dog-tribe. In the individual animal described by Mr. F. Cuvier, the progress was very clear, from a state of savage fierceness to a state of docility and extraordinary sensibility. This wolf was taken young; brought up with human beings; cherished by one in particular; never suffered to have his ferocity excited by want of food; and supplied with every necessary, as well as caressed, by the person with whom he had especially become familiar. The experiment is worth repeating.

It is remarked of the wolf that when he has become very fat he loses his ferocity in a singular degree. When kept in close confinement and fed upon vegetable matter, he becomes tame and harmless, but is very shy, restless and timid, expressing the greatest alarm at the approach of a stranger, and striving to escape from observation. The voice of the common wolf is a prolonged and melancholy howl, which, when uttered by numerous individuals at once, is discordant and frightful.

When the common wolf has been caught in a trap, and is approached by man, it is remarked to be exceedingly cowardly, and occasionally suffers itself to be beaten without offering the slightest resistance. If a dog be set upon a wolf thus captured, the assault is patiently endured so long as his master is present; but so soon as the wolf is freed from the restraint imposed by the presence of his captor, he springs upon and throttles the dog, which if not speedily assisted, pays the forfeit of his presumption and temerity with his life.

In the regions west of Hudson's bay, wolves are often seen, both in the woods and on the plains, though their numbers are inconsiderable, and it is not common to see more than three or four in a pack. They appear to be very fearful of the human race, but are destructive to the Indian dogs, and frequently succeed in killing such as are heavily laden, and unable to keep up with the rest. The males are not so swift at the females; and they seem to lead a forlorn life during the winter, being seldom seen in pairs until the commencement of spring. They bring forth their young in burrows, and though it might be well inferred that they are fiercer at those times than under ordinary circumstances, yet Hearne states that he has frequently seen the Indians take the young ones from their dens and play with them. They never hurt the young wolves, but always replace them in their dens, sometimes painting the paws of these whelps with vermillion or red ochre.

In the highest northern latitudes which have yet been explored, the wolves are very numerous and exceedingly audacious. They are generally to be found at no great distance from the huts of the Eskimaux, and follow these people from place to place, being apparently very much dependent upon them for food, during the coldest season of the year. They are frequently seen in packs of twelve or more, prowling about at a short distance from the Eskimaux huts, lying in wait for the domestic dog, which they are successful in killing if he wanders so far as to be out of reach of assistance from his master. In one instance, one of them rushed upon a fine New foundland dog belonging to captain Lyon, in the day time, and would have killed him but for the timely interference of his master. Captain Lyon, relates the following singular instance of the cunning of one of these wolves, which had been caught in a trap, and, after being to all appearance dead, was dragged on board of the ship: "The eyes, however, were observed to wink whenever any object was placed near them; some precautions were therefore considered necessary, and the legs being tied, the animal was hoisted up with his head downwards. He then, to our surprise, made a vigorous spring at those near him, and afterwards repeatedly turned himself upwards, so as to reach the rope by which he was suspended, endeavouring to gnaw it asunder, and making angry snaps at the persons who prevented him. Several heavy blows were struck on the back of his neck, and a bayonet was thrust through him, yet above a quarter of an hour elapsed before he died, having completely convinced us, that for the future, we should not too easily trust the appearance of death in animals of this description."

Buffon closes his description of the wolf by observing, that there is nothing of worth in this animal but his skin, which is manufactured into coarse but warm and durable fur. His flesh is nauseous to every other animal, and the wolf alone willingly eats of the wolf.

In Dr. Godman's Amer. Nat. Hist. will be found described, four species of the wolf inhabiting North America; they are as follows: to which we add one described by Pennant.

1. *The common wolf,* canis lupus; L. Godman, vol. 1, page 255.

2. *The prairie, or barking wolf,* canis latrans; Say, Long's Exped. vol. 1, page 168. Godman, vol. 1, page 260.

3. *The dusky wolf,* canis nubilus; Say, Long's Expedition, vol. 1, page 169. Godman, vol. 1, page 265.

4. *The black wolf,* canis Lycaon; L. Say, in Long's Exped. vol. 1, p. 102. Godman, vol. 1, p. 267. It is not yet satisfactorily established, that this wolf is precisely the same species as the European black wolf, whose scientific name is applied to it. Desmarest is much inclined to think it a new species, and it is most probable that a close comparison of the two may shew differences between them supporting his opinion. It has been found in the Missouri country.

5. *The Mexican wolf,* C. Mexicanus. Pen. see Rees's Cyclopedia.

Pressure of Wind.

It is ascertained by an accurate estimate, that the pressure of the wind upon 13 sails when set, comprising the suit of the N. Carolina 74, is equal to the weight of 20,785 lbs. avoirdupois, nearly ten and a half tons. The number of square yards of canvas, upon which the pressure operates, is 2,602.

Vital Principle of Seeds.

A small portion of the Royal Park of Cosby, was broken up some time ago for the purpose of ornamental culture, when immediately several flowers sprung up, of the kind which are ordinarily cultivated in gardens; this led to an investigation, and it was ascertained that this identical spot had been used as a garden not later than the time of Oliver Cromwell, more than 150 years before.

(From the Baltimore Weekly Messenger.)

BAKED BEANS.

Oh! how my heart sighs for my own native land,
Where potatoes, and squashes and cucumbers grow,
Where cheer and good welcome are always at hand,
And custards and pumpkin pies smoke in a row:
Where pudding the visage of hunger serenes,
And, what is far better, the *pot of baked Beans.*

Let Maryland boast of her dainties profuse,
Her large water-melons and cantelopes fine,
Her turtles and oysters and terrapin stews,
And soft crabs high zested with brandy and wine;
Ah! neither my heart from my native land weans,
Where smokes on the table the *pot of baked Beans.*

The pot of bak'd beans! with what pleasure I view it
Well season'd, well pork'd by some rosy-faced dame,
And when from the glowing hot oven she drew it,
Well crisp'd and well brown'd to the table it came.
O give me my country, the land of my teens,
Of the plump Indian pudding and *pot of baked Beans.*

The pot of bak'd beans! ah! the muse is too frail,
Its taste to descant or its *virtues* to tell;
But look at the sons of New England so hale,
And her daughters so rosy; 'twill teach thee full well;
Like me it will teach thee to sigh for the means
Of health and of rapture—*the pot of baked Beans.*

RECIPES.

Vaccination an Antidote to Distemper.

About six years ago, I was induced, at the suggestion of a medical gentleman, to try the effect of vaccination upon three young dogs, which I placed by themselves for the purpose of giving them every chance, and where I could watch them more conveniently. To my great astonishment and delight, the three dogs took the cow-pox effectually, and never had the distemper afterwards, although I carried my experiment so far as to place them in the hospital, where nine young hounds were suffering in that disorder. I need not say that after my experiment answering so satisfactorily, I have continued ever since to vaccinate the young dogs; and though I must admit that some of them have had the distemper after vaccination, it has attacked them in a very mild degree, and they have in nearly every case recovered. In addition to the above, allow me to add, as an opinion only, that cow-pox may have the effect of rendering the constitution of a dog less susceptible of madness. The part I vaccinate is the inner part of the arm near the chest.

To Kill Vermin on Cattle, and to Cure the Mange.

Put into an earthen vessel four ounces of flour of sulphur, and a pound weight of nut-oil; place the vessel upon a moderate fire and stir the mixture with a piece of wood, until part of the flour of sulphur is dissolved, and the oil has acquired a reddish-brown colour; then remove it off the fire, and, before it is entirely cold, add four ounces of essence of turpentine; then stir it again until it is incorporated. This preparation is neither expensive nor complicated; and when used is merely put upon the parts infested by a feather.

Vinegar.

It is found that the gastric tympany, or the inflation which sometimes takes place in the stomachs of cattle, in consequence of an excess of green food, and of the gas thereby produced, and which cannot escape, may be frequently relieved by vinegar, which puts an end to the production of gas.

THE FARMER.

BALTIMORE, FRIDAY, JANUARY 29, 1830.

☞ The experiments on the Rail-road continue to afford the highest satisfaction to the numerous visitors that daily attend them. Last Saturday, a number of carriages were connected, and filled with about one hundred and fifty passengers, amounting to at least fifteen tons in weight, including the carriages; and this immense load was drawn by one horse, at the rate of six miles an hour. A number of members of Congress had arrived from Washington, and witnessed the experiment. There seems to have been a judicious propriety in finishing this part of the road for the trial of cars, as it will enable the company, when the whole line is ready, to adopt those of the best construction without delay or wasteful expense. As yet, the Winans improvement appears to be decidedly the best; but even that will doubtless undergo many and great improvements, which these experiments will suggest. As to the practicability of rail-roads to any extent, that is no longer a matter of doubt—it has been settled by a test of unerring certainty, and no one now, after seeing the experiments, thinks of asking the question. All agree that turnpike roads are not more practicable. And as to the comparative advantages of rail-roads and canals, that is a question equally as definitively settled in the minds of all who have witnessed the operation of both, in favour of rail-roads. We have now an illustration of one of the advantages of rail-roads—if a canal occupied the site of the rail-road it would now be useless—locked up with ice, or empty.

Latest Foreign News.

By the Napoleon, at New York, Liverpool papers are received of the 24th December. There was no news of importance. It appears to have been strongly believed in London, that a negoriation is on foot between the Emperor Don Pedro, and Don Miguel, respecting the affairs of Portugal.

A piece of intelligence of the highest importance to the merchants of Paris has been communicated. The city of Paris will at length enjoy, without restriction, the right of *entrepot* for colonial produce, and for all articles imported from abroad.

The English papers continue their details of the distresses to which the operative manufacturers are reduced. Speaking of a meeting at Huddersfield, a Liverpool paper observes:

"We protest we have never read any thing half so harrowing as are the plain and unadorned details of this meeting."

Rail-roads.—The very favorable experiments which have been made on the Liverpool and Manchester Rail-roads, have induced a great number of other places to form similar projections. Many places are getting up meetings for the purpose of applying for bills at the next session of Parliament, which, if granted, will afford employment to thousands of our starving population of England.

Cotton Trade.—A writer in the Liverpool Courier makes the following statement:

"For several years past the consumption, both in this country and on the continent, has been overtaking the supply, and, in consequence, the general stock is considerably less than it has been for a great length of time, particularly of American growths, on which the manufacturer mainly depends. Three months ago, the prices were depressed fully ten per cent. lower than had ever been known; since then, there has been some improvement, but they are still less than they were at this time last year, whilst the consumption is going forward on a much larger scale, the largest I believe ever experienced, and that working on the reduced stocks, which certainly, at this moment, will be found, both here and on the Continent, not equal to our four months supply, though usually at this season they have been sufficient for six or more. The season for commencing picking in the United States was fully three weeks later than usual; fortunately the weather proved favorable, and it is understood a full average crop has been gathered. Fortunately for us it is so, depending, as we do, on that country for the supply of a raw material which employs the great mass of a working population. From the Brazils we are likely to have the usual supply, but not so from India or Egypt; in the former, China affords them a very superior market, and the crop in the latter is understood to be greatly injured by the unusually high overflowing of the Nile. Thus, with an increasing consumption, (for cotton goods are every where, by their extreme cheapness, daily more and more displacing woollen and linen amongst all classes, rich and poor, here and all over the world,) our stocks are likely to be considerably further reduced before another year passes away. The extreme low prices afford no encouragement for increased cultivation any where. Whatever speculators may do, let the government look coolly and earnestly at these facts, and endeavor to provide a remedy, if they can, before it is too late.

Liverpool Cotton Market, Dec. 24.

The Liverpool cotton market for the last week has been very brisk. The sales up to this day will probably be about 15,000 bales, at an advance of about 1-8 per lb. higher.

Liverpool, Dec. 22.

The demand for new wheat and oats has been very limited to-day, and we must note the former 4d and the latter 2d per bushel under our quotations of this day se'night, and the inferior qualities of each are quite neglected. Old wheat slow sale but not cheaper. Malting barley is scarce and supports former rates, but grinding qualities are 2d per bushel cheaper. No alteration in the value of malt, beans or Indian corn.—Flour and oatmeal dull sale, the former at 1s per sack, and the latter 6d a 1s per hoad reduction.

Liverpool, Dec. 19.

There has been more demand for cotton this week, particularly during the last two days; the prices of American descriptions generally have had a tendency to advance, though no actual improvement can be noticed, except in the lower qualities, which in some instances have improved 1-8d per lb. Other kinds of cotton remain without alteration. The sales amount to 14,680 bags, consisting of—

5870 Bowed at 5 3 8d to 6¾d; (150 of the new crop at 7d.) chiefly at 5¾ to 6¼d for middling to good fair; 1300 Orleans at 5¾d to 7d. chiefly at 6 1-8d to 6¾d for middling to good fair; 4210 Alabama and Mobile at 5¼d. to 6 3-8; 350 Sea Island at 12½d to 2s.; 40 Stained do at 6½d to 9d.; 590 Pernambuco at 7 1-8d to 7½d.; 1130 Maranham at 6½d to 7d.; 830 Bahia at 6¼ to 6 5 8d.; 240 Egyptian at 6½d to 8¼d.; 40 West India at 6d; 50 Carthagena at 4¾d. The arrivals are 4528 bags.

In tobacco there has been a moderate business done, and prices remain without any alteration.—Rice continues dull of sale, Carolina has been neg neglected. Our corn market has been dull, prices have been barely supported in wheat, oats, and barley; American flour remains without alteration: Indian corn is rather dearer.

From the London New Price Current of Dec. 22.

LONDON MARKET.

Tobacco.—Tobacco continues neglected, the few sales reported are small parcels to the trade.

Cotton.—The favourable accounts of the Liverpool Cotton markets towards the close of last week occasion more business here, but the sales are inconsiderable; they consist of 320 Surats at 3 1-8d a 3¼d. The Cotton public sale to-day affords no criterion of the market prices. It consisted of 537 bales Surats, all damaged.

CLOVER SEED, &c.

The subscriber has on hand for sale 180 bushels of Clover Seed, the greater part of which is very superior, weighing 63 lbs. to the bushel. Also, Orchard Grass Seed of fine quality. Likewise, 500 bushels of Northern Potatoes, Whites, Blues and Mercers, for seed.

A general assortment of the Messrs. Landreth's superior Garden Seeds, which he will furnish at wholesale or retail. Can also furnish to order, Fruit and other Trees, Plants and Bulbues Roots from the Messrs. Landreth's Nursery. He has likewise on hand, his usual supply of Agricultural Implements, which, he trusts, are too well known and appreciated to require recommending. He has lately become the Agent for Messrs. A. H. & L. Robins' Corn Planter, which is calculated for planting various kinds of seeds. He is also invested with the power to dispose of the patent right for the Corn Planter in any part of this State and East Virginia. All communications by mail (not orders) must be *post paid*, and they will receive immediate attention. JONATHAN S. EASTMAN.

No. 36, west Pratt street,
Between Charles and Hanover streets.

Prices Current in Boston, January 22.

Apples, best, bbl. 1.75 a 2.25. *Beans*, white, bushel .75 a 1.00. *Beef*, mess, bbl. 9.25 a 9.50; cargo No. 1, 7.75 a 8.00; No. 2, 6.75 a 7.00. *Butter*, inspected, No. 1, new, lb. .12 a .14. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.50 a 5.75; Genesee, 5.75 a 6.00; Rye, best, 3.62 a 3.87. *Grain*, Corn, bu. .62 a 63; Rye, .75 a .78; Barley .62; Oats .40 a .42. *Hogs'-Lard*, 1st sort, new, lb. .8 a .8½. *Pork*, clear, bbl. 15 a 16; Navy, mess, 12.50 a ——; Cargo, No. 1. ——a 12.50. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ----. *Wool*, Merino, full blood, washed, .38 a 40; do. do. unwashed, — a .25; do. three-fourths, washed, .30 a .35, do. half blood, .28 a .33; do. quarter, washed, .25 a .28; Native, washed .25 a .28; Pulled, Lambs', 1st sort, .37 a 38; do. 2d sort, .28 a .31; do. Spinning, 1st sort, 30 a .33.

Prices Current in New York, January 23.

Bees-wax, yellow .22 a 23. *Cotton*, New Orleans .10 a .12½; Upland, .8½ a .10½; Alabama, .9 a 11. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask — a 11.25; clean 11.75. *Flour*, N. York, bbl. 4.87½ a—— Canal 5.31 a 5.62½; Balt. Howard st. 5.25 a—— Richmond city mills, 5.25 a——; country, 4.87½ a 5; Alexand'a, 4.87½ a 5.00; Fredericksburg 4.75 a——; Petersburg, 4.87½ a —— Rye Flour, 3.50 a 3.62½; Indian Meal, per bbl. 2.37½ a 2.50; per hhd 12.75 a 13.00. *Grain*, Wheat, Genesee, 1.03 a 1.06; Vir. 80 a 90; Rye, North, 70 a 71; Corn, Yel. Nor. .52 a —; Barley, 68 a .70; Oats, South and North, .30 a .37; Peas, white, dry, 7 bu.——; Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8 a 8.50; prime 5.75 a 6.25; cargo 4.25 a 4.50; Butter, N. York, .12 a .15; shipping, .8 a 11; Lard, .5 a .6; Pork, mess 11.00 a 12; prime 9.00 a 9.50.

Prices Current in Philadelphia, January 25.

Bees-wax, yellow —. a .22; *Beans*, bushel $1.00 a 1.25, *Beef*, mess 10 a 10.50, prime 8 a 9.00, cargo 7; *Butter*, No 1, 8 a —, No. 2, 6. a---; *Cotton*, New Orleans .9½ a .13; Upland 10. a .11½, Tennessee 9½ a .10½, Alabama 9½ a 10½; *Feathers*, South. .34 a .36, West. .32 a .33; *Flax* .7½ a .8. *Flour*, sup. 4.50; fine, 4.12½ a —; Ryo 3.25 a 3.75; Corn meal, hds. 11.00 a ——, bls. —— a 2.06¼; *Flaxseed*, cask 10 00; bu. 1.30 a ——; *Grain*,—Wheat 85 a 92—Rye .50 a 52, Corn l. c. white, .35 a .36, l. c. yellow, .37 a .38, u. c. round, .38 a .42; Oats .25 a 30, Barley, Pa. .48 a .50; do. East. .— a.—; black-eyed Peas .40 a .50. *Hams*, Jersey .8 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .5 a .6½; *Oil*, linseed, 64 a 65; *Pork*; mess, 11.25 a ——, prime 10.50 a 11; cargo 9.00 a 9.50, *Rice*, 2 50 a 3.25; *Tobacco*, Kentucky .5 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .18 a .22, half blood .26 a .—; three quarters blood .28 a .32, full blood 28 a .32; unwashed, generally 6 cents less, according to quality.

ALMANAC.

1830. Jan.—Feb.	Sun. Rises. H. M.	Sun. Sets. H. M.	Length of days. H. M.	Moon. sets. H. M.
Saturday,...... 30	7 1	4 59	9 58	11 55
Sunday,........ 31	7 0	5 00	10 00	morn.
Monday,....... 1	6 59	5 1	10 2	0 05
Tuesday,...... 2	6 58	5 2	10 4	1 00
Wednesday,.. 3	6 56	5 4	10 8	2 05
Thursday,..... 4	6 55	5 5	10 10	3 10
Friday,......... 5	6 54	5 6	10 12	4 05

Moon—First Quarter, 31st, 11h. 23m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

BALTIMORE MARKETS.—There is very little change in Howard street flour—the wagon price continues at $4.25. The market generally for grain, remains about the same as last week. The harbour is yet unobstructed by ice, and will probably remain so. Beef on the hoof is very dull, and no change in pork.

TOBACCO.--Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12 00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week compriso 38 hogsheads Maryland, and 21 hhds Ohio.—Total 59 hhds.

FLOUR—best white wheat family, $5.75 a 6.25—super. Howard st. 4.37½ a 4.44—city mills, 4.00;—Susquehanna, ——. CORN MEAL, bbl. —— a 2.25—GRAIN, best red wheat, .— a .80; best white do. .85 a .90; ordinary to good, .70 a. .75--CORN, old white, .37 a 38; yel. .40 a —; new .— a —RYE, .— a 48: OATS, .— a .30 BEANS, 90 a 1.00—PEAS, .65 CLOVER SEED, 4.87½ a 5.12½ ---TIMOTHY, 2.50-—ORCHARD GRASS, 2.00—-Herd's, —- a 1.50—Lucerne .37½ a .50 lb.—BARLEY, ——FLAXSEED, 10.6 1.12½-COTTON, Vir. .9½ a .10½ Lou. .11 a .12 —Alab. .9½ a .11—Tenn. .9½ a .10—N. Car. .8½ a .9½—Geo. .9 a .10—WHISKEY, hhds. 1st p. .21 a .—-; in bbls. .22½ a ——WOOL, common, unwashed, lb. .15 a .16—washed, .18 a .20—crossed, .20 a .22--three-quarter, .28 a .30--full do. .30 a .35, accord'g to qual.—HEMP, Russia, ton, $215 a 220; Country, dew-rotted, 120 a 140—water-rotted, 170 a 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — a 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 a ——; Mackerel, No. 1, 6.00 a —— No. 2, 5.62½ a —No. 3, 3 25 a 3.62½—BACON, hams, Balt. cured, .9 a .9½—Feathers, .30 a 31—Plaster Paris, cargo price per ton, 4.75, ground, 1.25 bbl.—Prime Beef on the hoof, .4.00 a 4.50 —Pork on the hoof, 4.25 a 4 50—Pine Wood, by the vessel load, 2.75—Oak Wood, 3.50—Hickory, 5.

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JOHN S. SKINNER, Editor, by JOHN D. TOY, corner
of St. Paul and Market streets.

AGRICULTURE.

J. S. Skinner, Esq.

Sir,—The inclosed is forwarded for publication in the Farmer, should you consider it worthy of preservation. It was written some sixty years since, and is altogether the best account I have seen of the destructive insect of which it treats.

The facts detailed may certainly be relied upon, and if the writer has arrived at nothing valuable himself, he may at least serve as a *pioneer*, and lead to the useful, in the investigations of others.

Very respectfully, your ob't servant,
Robt. W. Carter.

Sabine Hall, January 25, 1830.

THE WHEAT WEAVIL.

(Extracted from the Agricultural papers of the late Col. Laudon Carter, of Sabine Hall, Virginia.)

Dear Sir,—It is not in my power to oblige you with the paper, which I some years ago published in our Gazettes, upon the little destructive insect called the *moth or fly weavil*. However, as you inform me, some gentlemen to the north are very earnest in their inquiries, as to its particular nature, I will from my diaries put together the discoveries, which led me to write the paper; and also what has since occured to me in the attacks our crops have recently met with from these insects.

It is certain they continue amongst us, just perhaps as the seasons favour or not their propagation, although some persons fancy they have their periods for coming and going away.

It is something more than twenty-five years, since I either heard or knew any thing of such an insect as the wheat weavil; being then acquainted with a Captain Martin Brooke, of the ship August, who it seems had been carrying wheat from Sicily, I was favoured with a few bushels of that kind of the grain, which he had brought into Virginia. The largeness of it, together with its flinty and almost transparent look, made me cultivate it for two or three years, to see if I could grow it to any advantage in my lands; but not being successful, I turned to my old white lammas seed again; and upon a good crop made, I found to my surprise the September after housing, our East India bats, (as we call them,) continually hovering in the evenings about my barns, when although it was not my time for threshing, curiosity led me to look into the employment of the birds; when I found from almost every aperture in the barn, the moths were flying out, upon which these birds fed. My curiosity led me further to discover, that my grain was almost eaten to husks ear by ear; and these little villains were expeditiously crawling out of the ears and flying away. I soon learned that the same fate had attended the wheat crops of other persons, and as I knew some of them were endeavouring to cultivate the *Sicilian wheat*, I conjectured we had unhappily introduced this foreign enemy amongst us by that importation; and though it is a trifling point to contend for, yet it is worthy of remark, that from my first possession of my Northumberland estates, where I had constantly sown my own seeds to this moment, I never had one of these weavils. But my crops of wheat made there, though brought home and put into my granary, have never been affected by these flies, when perhaps hundreds of bushels made at home, have been several times destroyed by them.

I mention these circumstances, not so much to support the conjecture as to the Sicilian wheat, but to confirm another argument founded upon my observations.

I have been more than usually anxious to examine into the nature of this insect; for from its make it appears impossible that it can ever perforate a hard grain, being furnished with nothing by nature, discoverable from the most minute examination by glasses, that could make such a perforation. It is with much propriety called a weavil, as it is an insect that destroys wheat even in our granaries, though it is not of the kind termed by naturalists the *curculio*, of which they have given a very long list; for it is not like a *bug;* it carries no *cases for its wings;* neither has it any *feelers*. The fly itself consists of nothing more sensible to the touch than a little pale, dry glossy dust which it leaves, on being squeezed by the fingers.

Having observed that my Northumberland wheat was never infested by weavils, but constantly remained sound and perfect, though I have been obliged many years, to keep it in the same granary with weavil-eaten wheat, I am led to conclude, that the enemy somehow lodged in the grain, before it grew hard. It might not then have been too late to procure the proof of this, which I have since possessed myself of, by discovering little eggs, and maggots half formed into flies in the grain; but as I then had nothing particular to lead me into such an examination, I waited until the next crop. I then visited a field of wheat at all times, between day and dark in calm weather, in the several days of its growth from the *blooming time*, till the *livery or hardening state* of the grain, if possible to discover, whether any of these flies appeared among the heads of wheat, during the soft state of the grain. Accordingly one pleasant evening after the sun was down, and every thing serenely calm, I found the flies extremely numerous, and busy amongst the ears of wheat. I immediately enclosed some of them in a loose light handkerchief, and with the magnifiers I took occasion to examine them. They are a pale brown moth, with little trunks or bodies somewhat shorter than their wings. As some of their little bodies appeared loaded, I applied the pressure of a fine straw upon them, and saw them eject, one after another, a number of little things, which I took to be eggs: some of the flies emitted fifteen or twenty of these, and others appeared extremely lank in their little trunks, which I could not make discharge any thing like an egg. Whether these had deposited their eggs in the field, or were of the male kind, I could not discover, but I concluded there need not be more than two or three flies to an ear of corn, to lay eggs enough to destroy the greatest crop. At the time these flies were thus discovered, I must observe, that the bloom or farina of the ears had for some days disappeared, and the grain nearly filled, though in a kind of mulchy or milky state, and that at such a time, the husks or capsules, are gegerally sufficiently open to admit the entrance of such flies.

I imagine that as nature certainly intends the farina to impregnate the grain, and as that could only be done by its falling into the capsule, she necessarily favours such a process by opening the mouths of these vessels. Some have advanced, that the fly perforates nothing, but lays its egg on top of the husk, and when hatched into a maggot, that the maggot eats through the husk into the grain. The gentlemen have drawn their arguments from the garden pea. The egg of the pea-bug according to them, is laid upon the bark of the pod next the pea, and being hatched, eats through into the pea. These opinions are liable to many objections; but the settlement of such questions is of little consequence, unless it be, to justify Providence, in the wisdom and perfection of its modes.

Can it be presumed that an insect should by instinct, be directed to deposit its egg in a proper nidus, which should be also a pabulum for it, as soon as it hatches; and yet that they should only be permitted to do this, upon the coat of the nidus; from which it may be liable to be removed by numberless accidents? For where a single egg is laid, the viscus matter around it, cannot be a sufficient cement for a grain in actual growth, as it might be with a number of eggs studded together on a leaf or around a twig. Besides I think both of us have discovered eggs as well as maggots, under the skin of the pea, which proves it is first an egg, and then a maggot, hatched in the pea. But if the fly lays its egg on the end of the husk, how do they so uniformly eat through the husk, and then the grain, and become a fly in the extremity of the grain opposite to the germ?

Nature is in many things so minute and secret, as to leave her ways frequently beyond the comprehension of man. His microscopical improvements upon vision, enable him to make many discoveries, but many things yet remain secrets. We can see in some flies their changes from the process of propagation, through the various changes of life, until they come to the same work again, and then we have reason to pronounce their history perfect. But though we know the manner, in which others are propagated, and can trace them through all their changes, to the fly that again lays the egg, yet some phenomena make it extremely difficult to discover, how the *interval of time*, between its existence as a fly and its laying its egg, is employed by them. This unknown portion of their existence, we conjecture to be spent in a torpid state, but no man's conjectures amount to certainty. There are some material difficulties to surmount in the history of the moth fly or weavil. Naturalists tell us, and indeed our own observations confirm it in some of them, that after they become a fly, they are never busy in search of food, nor are they known to take any kind of sustenance, but seem solely employed in the business of fecundation, and the females in particular in depositing their eggs for a new brood; of this kind the weavil moth seems to be one. But the difficulty is to learn, where and how they retire, till the period of the soft state of the new grain comes on again, and in what manner they protect themselves from the cold of winters, too great to be endured by their slender constitutions. We may imagine that some intermediate brood may be raised; but what can be the nidus or food, to bring them to the fly state again, ready for the period of the soft state of the grain? I presume it is this difficulty that induces some to embrace the opinion, that after they eat out of one grain, and become a fly, they immediately fecundate and deposit their eggs upon the husk of another ear, or upon the grain hard as it is. But if I have not sufficiently shewn this to be an impossibility from their conformation, as well as from the chances of dislodging such eggs from the grain, let their cement be what it may, I will now shew its impossibility, I think, from the uniform manner in which they begin to eat on the back of that end of the grain opposite to the germ. Now to suppose them capable of depositing their eggs upon the ends of other grains, in a uniform manner, is to believe them capable of distinguishing between the ends of the grain, notwithstanding the confused manner in which the grain is thrown in a granary. In the husks indeed they might easily find that particular end of the grain, because in the ear, the grain lies in one uniform direction, and when growing, in the milky state this particular end is the only part of the grain exposed to the visits of these flies.

Some persons have imagined that the flies remain in the granaries or barns ready to take the grain, as soon as the new crop comes in, but this is encountering my former objections, without having any good reason in its favour; and I must declare to them, that I have fumigated, burnt and done every thing that could clear a granary, from almost every insect in the world, and yet the new crop has laboured under the same calamity that destroyed the old one.

My end in all this inquiry was, to prevent the destruction made in the wheat by this insect, and as I imagined I knew enough of their habits to conduct me to this point, from the accounts given of hatching in Egypt, and what may be read in Du Raumer's elaborate treatise upon hatching, the several methods practised of preserving eggs from stale taints, in long voyages, and many little domestic observations, that corresponded with common sense, I endeavoured to settle the principles necessary to vivify or hatch an egg. I found it constantly experienced that a fowl greased under the wings, as they sometimes are to destroy lice, can never hatch an egg. I also remembered a lady curious in turkies, in order to produce a forward brood, set her hens in a meat-house, but the eggs did not produce a single pout, and it was discovered that the hens had been greased, by the accidental drippings of the meat. As these discoveries agreed with the French method of preserving eggs, by tallowing them over, founded certainly upon the principle of keeping out the air; I thought I might conclude that besides warmth, air was necessary to vivify an egg. The hen-house wives confirmed the idea, by constant observation, that hens not only turn their eggs, but leave their nests at proper periods; and those that hatch well, cool themselves frequently with water, whilst others perpetually brooding, if they do not die themselves, addle their eggs.

Upon these two principles then of heat and air, I thought myself certain of effecting the destruction of the weavil eggs in the grain, and sought, therefore, that method, which should be attended with least labour and expense. Too much warmth or too little, and an entire exclusion of the air, must do the business. If it were consistent with the prudence of a farmer to thresh out his grain as soon as it is reaped, a drying kiln might be constructed, to destroy these eggs by communicating too much heat; but as many causes might prevent a farmer from threshing out his grain very early, I was obliged to turn my thoughts wholly to the *mow*.

Wheat I know, and can prove, will contract a degree of warmth in the mow, which is of service many times to plump out the grain, by a kind of after circulation in the straw; to do any thing to increase the warmth, so as to destroy the eggs, might possibly injure the grain. I therefore fell solely upon the plan of excluding the air, as much as possible; and this I was fortunate enough to effect with great success to my crops for many years, until old age and infirmity, prevented my personal attention to my servants whilst they were pursuing my directions, and not till then, had I the least reason to complain of the weavil, while others had their crops eaten up. But villainy and negligence are such concomitants of servitude, that I am again destroyed, which is plainly to be accounted for from the visible abuse of my directions. The method used is this.

I reap as early as I possibly can, having regard to the condition of the grain and straw. I leave a vacancy of at least two feet, around the mow, which is to be well trod with soft hay or beaten straw, and I keep persons constantly treading down these margins, as the mow rises; when I reach the eaves of my barn, I lay on and tread down a very thick covering of the straw or hay, and weight it well down at top. Had I not found this effectual, I would have incurred the expense of plaistering my barn. This method I published many years ago, and many gentlemen have assured me they have practised it ever since, and continue to do so now, with the greatest success. The farmer, if he chooses to try it, and suffers nothing to prevent an early harvest, will I am persuaded, confess the justness of what I have suggested; but if by any means he should be late in his harvest, and the temperature of the weather should be adapted to hatching the egg, or should he be too early in beating out the grain before it is sent to market; it cannot then be of any service, as the mischief may be done in the field, and the eggs not destroyed in the mow, may be hatched in the grain.

(From Loudon's Encyc. of Agriculture.)

ON THE CULTIVATION OF CLOVER.

(Concluded from page 362.)

The making herbage plants into hay is a process somewhat different from that of making hay from natural grasses. All the herbage tribe ought to be mown before the seed is formed, and indeed before the plants have fully blossomed, that the full juice and nourishment of the herb may be retained in the hay. By the adoption of this system, the hay is cut in a better season, it can be more easily secured, and it is much more valuable. Nor is the strength of the plant lodged in the seed, which is often lost. The great advantage of converting under-ripe herbage and grass into hay is now beginning to be known. There is much more saccharine matter in it, and it is consequently greatly more nutritious. A crop of clover or saintfoin, when cut in the early part of the season, may be ten per cent. lighter than when it is fully ripe; but the loss is amply counterbalanced, by obtaining an earlier, a more valuable, and more nutritious article; while the next crop will proportionably be more heavy. The hay from old herbage will carry on stock, but it is only hay from young herbage that will fatten them. When the stems of clover become hard and sapless, by being allowed to bring their seeds towards maturity, they are of little more value as provender, than an equal quantity of the finer sort of straw of corn.

The mode of making clover-hay, and that of all herbage plants, as practised by the best farmers, is as follows. The herbage is cut as close to the ground and in as uniform and perfect manner as it is possible to accomplish, by the scythe kept constantly sharp. The surface having been in the preceding spring freed from stones and well rolled, the stubble after the mower ought to be as short and smooth as a well shaven grass lawn. What part of the stems is left by the scythe, is not only lost, but the after-growth is neither so vigorous nor so weighty, as when the first cutting is taken as low as possible.

As soon as the swath or row of cut herbage is thoroughly dry above, it is gently turned over (not tedded or scattered,) without breaking it. Sometimes this is done by the hand, or by a small fork; and some farmers are so anxious to prevent the swath from being broken, that they will not permit the use of the rake shaft. The grass, when turned over, in the morning of a dry day, is put into cocks in the afternoon. The mode of performing this is very simple and expeditious; and none but women, boys, and girls, under the eye of a confidential servant, are usually employed. If the crop is heavy, a row of cocks is placed in the middle ridge of three, and if light of five ridges. A distinct company of carriers and rakers is allotted to every such number of ridges; and the separate companies proceed each on its own ground, and in the same manner as in reaping grain, which occasions a degree of competition among them for despatch, clean raking, and neat well-built cocks. The carriers gather the hay, and carry it to the ridge where the cock is to be built, by one of the most experienced hands. A raker follows the carrier, taking up and bringing to the cocks the remains of the swath. There may be, in general, about five people employed about each row of cocks; a carrier and raker on each side of the ridge on which the cocks are placed, and a person on the ridge, who builds them. But when the crop is not weighty, more rakers are required, as a greater space must be gone over.

As the *cocks are thus placed in a line*, it is easy to put two or more into one afterwards; and the larger cocks may be speedily drawn together, to be put into tramp-ricks, by means of ropes thrown round their bottoms, and dragged along by a horse. It is impossible to lay down any rules for the management of hay, after it is put into cocks; one thing is, however, always attended to, not to shake out, scatter, or expose the hay oftener than is necessary for its preservation. Sometimes the cocks have been put up so large, that they never require to go to a tramp-rick, but were carted to the stack-yard, without ever being broken, and put up in alternate layers with old hay. But where this is attempted, there must not be much clover. The practice of mixing the new with the old hay is, however, a good one, and saves a great deal of time and labor, at the same time that the old hay is much improved by the mixture.

The best managers disapprove of *spreading out the swaths of clover and rye-grass*, though this is often necessary with natural grasses, which are cut and harvested later in the season. The more the swath is kept unbroken, the hay is greener, and the more fragrant.

Another mode of hay-making, said to have been originally practised in Lancashire, has been found to answer well in the moist atmosphere of the west of Scotland. This is called tippling or rippling; and if the grass be dry, the operation begins as soon as it is mown. "In making a tipple, a person with his right-hand, rolls the swath inwards, until he has a little bundle; then the same is done by the left, until both meet, and form eight to twelve pounds, or nearly so. This bundle is then set up against the legs, or between the feet; a rope is twisted of the grass, while the bundle is supported in this manner, and tied round it near its top; and from the top are drawn up a few straggling stems, which are twisted to make the tipple taper to a point, and give it as much a conical shape as possible. If the crop is strong, there is a row of tipples placed on each swath; if light, two of these are put into one row. After standing a few hours, they become so smooth on the outside, that the heaviest rains seldom wet them through; and when wet, they are soon dried again in good weather. As soon as ready, they are put into the summer-rick, or, if very dry, even the winter-stack, but are never opened out or tedded, to make them dry, as they never require it. By this method, not a blade is lost, and the hay is nearly as green as a leaf dried in a book. In a moderate crop, one woman will tipple to one mower, and a woman will rake to two tipplers, or two swathers. But where the crop is strong, it may require three women to keep pace with two mowers. After the hay is put up in this manner, the crop may be considered as secure, though it may continue wet weather for a considerable length of time." (*General Report of Scotland*, vol. ii. p. 11.)

Hay is *stacked* in circular or oblong stacks, the latter form being most generally approved of, and carefully thatched, as has been already observed in regard to corn. It is never advisable to allow this kind of hay to become heated in any considerable degree, in the stack, though a slight exudation, with a very gentle warmth, is usually perceptible, both in the field-ricks and in the stacks, for a few days after they are built. But this is a quite different thing from that intentional heating, carried so far, in many instances, as to terminate in conflagration.

The after-growth or second crop of clover is vigorous or weak, according to the proportion of clover plants to rye-grass, to the time when the first crop was cut, and to the moisture and warmth of the season. When the first cutting has been made early for soiling, there will sometimes be three cuttings in one season. The first of these after cuttings may be made into hay, and sometimes the second; but in general, both are consumed by soiling or pasturing, unless in some dry warm districts, as Norfolk, and parts of Suffolk, Kent, &c , when the second growth is left to ripen its seed. In the northern counties the second crop is seldom made into hay, owing to the difficulty of getting it thoroughly dried at a late period of summer, when other more urgent operations usually employ all the laborers of a farm. If it be cut for this purpose, the best method of saving it, is to mix it up with straw, which will absorb a part of its juices. It is often cut green, as a part of the soiling system; or, where a sheep stock is kept, pastured by the old ewes, or other sorts, that are to be fattened the ensuing winter on turnips.

In consuming clover and other herbage plants by pasturing or eating down on the spot, three methods have been adopted, tethering, hurdling, and free pasturage.

Tethering may be considered a rude practice, and is chiefly confined to the north of Scotland and Ireland. In *The Agricultural Report of Aberdeenshire*, it is stated, that there are some cases, where the plan of tethering can be practised with more profit than even soiling. In the neighborhood of Peterhead, for instance, they tether milch-cows on their grass fields, in a regular and systematic method; moving each tether forward in a straight line, not above one foot at a time, so as to prevent the cows from treading on the grass that is to be eaten; care being always taken, to move the tether forward, like a person cutting clover with a scythe, from one end of the field to the other. In this way, a greater number of cows can be kept, on the same quantity of grass, than by any other plan; except where it grows high enough to be cut, and given them green in houses. In one instance, the system was carried to great perfection, by a gentleman who kept a few sheep upon longer tethers, following the cows. Sometimes also, he tethered horses afterwards upon the same field, which prevented any possible waste, for the tufts of grass produced by the dung of one species of animal, will be eaten by those of another kind, without reluctance. This system was peculiarly calculated for the cow-feeders in Peterhead; as, from the smallness of their buldings, they could not afford to keep servants to cut, or horses to carry home the grass to their houses, to be consumed in a green state.

In hurdling off clovers or herbage crops, a portion of the field is enclosed by hurdles, in which sheep are confined; and as the crop is consumed, the pen is changed to a fresh place, until the whole is fed off. This practice is very extensively adopted at Hulkham, and is peculiarly calculated for light and dry soils. Its advantages are, that the grass is more economically consumed; the stock thrive better, having daily a fresh bite; and the dung that falls, being more concentrated, is more likely to be of use.

In the common pasturing of clover, the stock are introduced into the field earlier than in tethering or hurdling, in order to avoid the loss that would be sustained by cattle or sheep treading *ad libitum* on tall herbage. Indeed, the principal advantage of pasturing clover is, that sheep and lambs may be turned on them more early than on common grass-lands. Sometimes this advantage is taken for a month or six weeks, in the beginning of summer, and the field afterwards shut up for a crop of hay; but more frequently the red clovers are only pastured the second year. When white and yellow clovers are sown, the herbage is sometimes not mown at all, but pastured for three or more years, and sometimes a little red clover being sown along with these, a crop of hay is taken the first year.

The produce of clover hay, without any mixture of rye-grass, on the best soils is from two to three tons per acre, and in this state in the London market it generally sells 20 per cent. higher than meadow-hay, or clover and rye-grass mixed. The weight of hay from clover and rye grass varies, according to the soil and the season, from one to three tons per English acre, as it is taken from the tramp-ricks; but after being stacked, and kept till spring, the weight is found to be diminished 25 or 30 per cent.

The value of clover and rye-grass hay, in comparison with the straw of beans or peas, may be in the proportion of three to two; and with the finest straw of corn crops, in the proportion of two to one. One acre of red or broad clover will go as far in feeding horses or black cattle, as three or four of natural grass. And when it is cut occasionally, and given to them fresh, it will, probably, go still much further, as no part of it is lost by being trodden down. With the exception of lucern, and the herbage of rich marshes, there is no crop, by which so much stock can be supported, as by clover. It may be profitably employed in fattening sheep in spring, and with this food, they will soon be ready for the butcher. Afterwards, a crop of hay may be got, and two or three weeks after the hay has been taken off, sheep intended to be fattened on turnips, may be turned in, and kept there, until the turnips are ready for them.

The saving of clover seed is attended by considerable labor and difficulty. Clover will not perfect its seeds, if saved for that purpose early in the year; therefore it is necessary to take off the first growth either by feeding or with the scythe, and to depend for the seed on those heads that are produced in the autumn. Seed-clover turns out to good account in those years when the crops are not injured by the blight, which is often fatal to them, or by the rains in the autumn, which sometimes prove their destruction; for the time of harvesting this seed falling out late when rainy weather may be expected, renders it, on that account, very tedious.

When the first crop is fed off, it is eaten till about the end of May, frequently by ewes and lambs; and this is understood to be an advantageous practice, because the land is less exhausted, and the green food is of great value for stock in the spring months. It is not uncommon, however, to cut the first growth for a hay crop, and this should be done earlier than usual. The growth thus reserved for seed must be suffered to remain till the husks become perfectly brown, when it is cut and harvested in the usual manner, leaving it on the field till it is very dry and crisp, that the seeds may become more fully hardened; it may then be laid up dry, to be threshed out at the farmer's convenience. Much labor and expense are necessary in separating the seed from the capsule, or seed-coat, especially when it is effected by threshing, which seldom costs less than from five to six or seven shillings per bushel. By the use of mills the work may be done much cheaper.

The produce in seed may generally be from three to four or five bushels per acre, when perfectly clean, weighing from two to three hundred weight. But there is great uncertainty in the produce of clover seed, from the lateness of the season at which it becomes ripe; and the fertility of the soil is considerably impaired by such a crop. Yet the high value of the seed is a great inducement to the saving of it, in favorable situations. (*Dickson's Practical Agriculture*, vol ii. p 863.)

The diseases of clover are the blight or mildew, and suffocation or consumption, from insects, slugs, and worms. It often happens that clover after being repeated at short intervals on the same soil, either fails or does no good; whether that is owing to a disease or to a defect in some peculiar substance, which enters into the food of the plant, does not appear to be clearly ascertained. A top dressing with ashes or lime, is said to be unfavorable to the slug; but where vermin of this sort are very numerous, the most certain remedy is a naked fallow well worked in the hottest months.

HORTICULTURE.

CULTIVATION OF THE GRAPE.

Extract of a letter from N. Herbemont, Esq. to a friend in Baltimore, dated August 12th, 1829.

"According to your desire, I shall give you a few hints on the subject of the culture of the vine, suggested by my experience. The frost is, as you express it, our great enemy; but there are several others, which we have to give constant battle to, if we hope to conquer them. These are—birds, insects of various kinds, and too much rain in summer. However, difficult, it may be to conquer them all, the frost and the rain present the greatest difficulty. Any one who undertakes the cultivation of the vine on a large scale, must make up his mind to meet with frequent disappointments. He must know that the produce of the vine is every where precarious, more or less so according to circumstances of climate and soil: and also according to the number of persons interested in the destruction of its enemies. On the other hand it is perfectly true, that the crop is sometimes large beyond all anticipation; so that if a vigneron should make but one crop in three years, still his average profit would far exceed that produced by any other culture usual with us. For this reason, and others very obvious, it is a matter of no small consequence, to select well the particular kinds of grapes, which yield the best wine, and in the greatest quantity, and those which are least subject to rot and to other casualties; also to make a judicious selection of soil, and particularly of situation. The experiments necessary to make a good selection, are very expensive, and require many years to be perfected. Happy is he, in this as in most other respects, who can avail himself of the experience of others. As to situation, the same instructions given 2000 years ago, are still the best, viz. a high, dry, airy spot, with a deep light soil, sandy, gravelly, or calcarious; but sufficiently loose for the roots to strike deep in search of moisture, and enable the vine to resist our great heat, and long droughts. The side of a hill is chiefly recommended; but on account of the very heavy rains to which we are liable in summer, I would not select a steep hill-side, lest the soil be soon washed down. The exposition also requires consideration. That which is least liable to be affected by later frost, is to be preferred. A good mark is where a peach orchard never fails of producing fruit. There are spots where fruit trees never fail of bearing a plentiful crop, such cannot be purchased at too high a price for a vineyard; for then a failure would scarcely happen. If my vine-yard were secure from late frost, and my Madeira grape never to rot, or to rot slightly, I would not exchange it for a sugar plantation. And there are situations where it never rots, particularly when trained high, the bearing part running on a trellis, placed horizontally about seven or eight feet high.

I have hitherto preferred planting cuttings early, that is, in November or December; I have also succeeded very well in March and April, when the cuttings had not pushed out their buds too much; but not so well in the intermediate time. Any mode by which the cuttings could be kept alive without growing, until the danger of frost is past, would secure the growth of almost every cutting. For this purpose I would suggest to those who can conveniently do it, to keep their cuttings in an *ice-house*. They ought to be put in barrels or boxes, buried upright in clean sand, leaving one or two buds out. I have not had the possibility of trying this experiment; but am almost fully satisfied, that cuttings kept so *cold* as not to vegetate, *moist* enough to keep them alive, in clean sand to prevent their growing mouldy, but not so wet as to rot them, (of which there can be little danger in an ice-house,) may be planted or grafted late in April. or even in May, without losing one in twenty. This would save a great deal of trouble as it is very useful, when cuttings are planted or grafted earlier, to cover them entirely with earth to keep the frost from the bud, and when the danger is over, take off gently the earth which had been thus drawn up. This must be done very carefully for fear of breaking off the buds, which have then begun to shoot.[*] I usually plant my vines in rows about *ten* feet apart, and seven or eight feet in the rows, planting two cuttings in each place, the *tops* close together, and the bottoms as far apart as convenient. If both take I transplant one, when two years old, in a missing place. A good way also is to prepare a piece of ground by manuring and deep digging, and plant the cuttings in nursery, in rows 2½ or 3 feet apart, and 6 to 8 inches in the rows.[†] In this case it is best not to plant them so deep, as when they are to remain. Eight or ten inches is deep enough, and they take root better than when planted deeper. Ground that has been well manured and cultivated the preceding year or two in potatoes, is well prepared for a nursery. When the vines are two or three years old, transplant them where they are to remain, taking care to have the holes dug first, and to take up only a few vines at a time, that the roots may not be long exposed to the air or sun. By digging them up with all their roots unhurt, and planting them very carefully, a *foot* deep, in holes at least two *feet* deep, and *half filled up with good mellow earth*, the vines will all take and scarcely suffer at all by the removal. To propagate the vine speedily and effectually, I would recommend grafting to those who have stocks fit for the purpose. In the country wild vines of any kind will do very well—even in the woods. Cleft grafting in the root, a few inches below the surface is the most convenient way; but when the stock is too large to be cleft, saw it off horizontally, and *with a gimlet make one or two holes in the stock about 1½ inch deep*, then take the scion, cut through the bark, and as much of the wood as may be necessary to fit it to the hole, and drive it in; then with a little well mixt clay cover the stock, and about an inch of the graft, and cover the whole with earth, leaving only one bud above the ground. ☞ The vine will bear grafting without joining the bark of the scion with that of the stock—the graft will grow with the utmost vigour, and frequently produce fruit the first year. They will at all events produce a number of fine cuttings the next winter. I have also succeeded well in making layers from side shoots, that grew very strongly near the ground, from the graft, laying them when green, in the summer following the grafting, and separating and transplanting the following spring. I have also dug up wild vines in the woods, even after they had begun to grow—in April *when they had leaves on;* grafted on them, and planted them carefully. I have *now* several of them grafted thus last April, that have *ripe fruit*. It is therefore advisable never to root up a vigorous vine because it does not bear good fruit, but to keep them for grafting. I grafted last spring two or three hundred Maderia scions in the roots of the Isabella, (which is nearly worthless here,) and these grafts are now, many of them, with fruit on them, from twelve to twenty and even thirty feet long, and proportionally thick.

This Madeira, also called Warren, is the most valuable grape that has yet come to my notice.—It is certainly the greatest bearer, and makes the best wine of any I have tried. It is also the most juicy, and is as rich as any I know. Its only fault is, as observed above, that some seasons, this rainy one for instance, it rots a good deal. I have however, some old vines of it that do not rot, and others that are perfectly sound three years out of four.

N. H.

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[*] Might not the trouble of *uncovering* be avoided, by using covering of so light a nature, that the shoot would easily pass through it?—Ed.

[†] There is a gentleman in this city who raises a considerable number of vines every year in nursery, some in beds prepared for the purpose—the plants nine inches apart each way; and others in boxes and in tubs, made by cutting flour barrels in two, eight or ten cuttings in each. They may be transplanted from these without a fibre being injured. The cuttings he uses are very short—frequently with a *single eye*. They require, however, to be watered, if the weather is not seasonable.—Ed.

NURSERY.

Mr. Robert Sinclair, of the firm of Sinclair and Moore, has established a Nursery about three miles east of the city of Baltimore, bounded on its eastern margin by the Herring run. The farm contains 167 acres, and is most happily situated for the object he has in view. The soil is chiefly a *rich bottom loam*, finely exposed and protected, and every way calculated to answer and promote the purposes of such an establishment. In this particular business, Mr. Sinclair has the advantage of many years experience, and is every way calculated not only to give satisfaction to those who may foster and patronize him, but to reflect credit upon the state. His ambition leads him to endeavour to make *his Nursery* to Maryland, what *Prince*'s is to New York,—its pride and boast. Such being the case, we cannot but tender him our hearty and most cordial wishes for his entire success. Whilst we look upon the furtherance of the interests of men who hazard their individual means to advance the public convenience, as a moral duty, we cannot but regard the present effort of this gentleman, as being peculiarly entitled to encouragement.

Although Mr. S. has but recently engaged in his present enterprise, he has now, growing in his Nursery, 59 varieties of apple; 40 of the peach; 5 of the apricot; 2 of the nectarine; 18 of the plum; 20 of the cherry; 44 of the pear; 12 of garden fruit; 6 of the currant; 6 of strawberries; 6 of raspberries; 7 of figs; 26 of grapes; 60 of roses, besides a choice assortment of ornamental shrubs; vines, creepers, forest trees, medicinal and culinary herbs, and excellent plants and flower roots. Most of these plants, shrubs, trees, and flowers, are ready for sale, and the rest rapidly approaching that state. We noticed amongst his varieties of strawberries, one kind particularly fine, the dimensions of which, as represented in the plate, are calculated to surprise, if not weaken credulity—they are stated to be 2 3-8 inches in diameter. We have merely mentioned this fact as evidence of the pains taken by this enterprising man to render his establishment worthy of public patronage, and leave it to the people of Maryland to say whether such public spirit as his should go unrewarded.

[*Chronicle.*

On the Cultivation of Celery.

John Wedgewood, Esq. in a letter to the Secretary of the Horticultural Society, stated the success he had experienced in the preceding year in making a plantation of celery late in the year, from the seeding plants which had remained in the seed bed till they had grown to a considerable size. The plants thus removed not only took well, but had the advantage over those planted when very young, as is customary, in growing stronger as well as in being sooner fit for use. If the success of this experiment should be confirmed by experience, it will relieve the gardener from much labour and trouble in attending to the planting his trenches of celery at an early period.

A full purse never lacks friends.

INTERNAL IMPROVEMENT

ESSAY ON RAIL-ROADS.

"The first railways in England," according to Tredgold, "appear to have been used in the neighbourhood of Newcastle upon Tyne, about 1680."

They were found eminently beneficial in the transportation of stones, and coal, and other minerals, from quarries and mines to landings or places of depot, whence those bulky articles were transported by other modes of conveyance. The rails were originally formed of wood. The coating with iron is a modern invention.

It is among the most extraordinary instances of the slow progress of improvement in olden time, that notwithstanding the daily experience of the utility of rail-roads to the proprietors of quarries and mines, and their immense addition to the power of horses, nearly one hundred and twenty years elapsed from their first introduction, before any attempt was made to apply them to the purpose of general transportation.

In the year 1799, the proprietors of the Grand Junction canal, conceiving that rail-roads might possibly be advantageously employed to connect different branches of their canal, appointed a committee of gentlemen to proceed to different collieries to ascertain their applicability to that object. The following is a statement of the result of their investigations.

"One horse, value twenty pounds sterling, on a declivity of an iron road, five-sixteenths of an inch to the yard, *drew twenty-one carriages, or wagons, laden with coals and timber, amounting, in the whole, to thirty-five tons*, overcoming the vis inertiæ, repeatedly, with great ease. The same horse, *up this acclivity, drew five tons with ease*. He also drew up this road, where the acclivity was an inch and three quarters to the yard, three tons.

"On another railway, at a colliery in Nottinghamshire, one horse, value thirty pounds, drew, on a road of the same construction, where the declivity was one-third of an inch to the yard, *twenty-one wagons of five hundred weight each, which, with their loading, amounted to above forty-three tons;* and drew seven tons up the road. It must be observed that in both the above statements the hundred weight is 120 lbs."[*]

How far they availed themselves of this information does not appear. But in the year 1801, an act was passed for the construction of the Surrey rail-road, extending eighteen miles, from the banks of the Thames, near Wandsworth, in the county of Surrey, to Mesham. This proved a total failure, a result ascribed by Tredgold to the shortness of the distance, and the necessity of trans-shipment.

"Up to this period [March, 1825.] railways *have been employed with success only in the conveyance of heavy* mineral products, and *for short distances, when immense quantities were to be conveyed*. In the few instances, where they have been intended for the general purposes of trade, THEY HAVE NEVER ANSWERED THE EXPECTATIONS OF THEIR PROJECTORS."[†]

"The Surrey rail-road being one of the few attempts to form public rail-roads for general use, the causes of its not having been so successful as to encourage others, become an interesting subject of inquiry. * * * In the application of rail-roads as of canals, it must always be to move goods or materials from one depot to another. Their distribution must be effected by other modes of conveyance. Consequently, *as a means of general trade they are not likely to answer for short distances*."[‡]

From this period till the year 1820, public rail-roads do not appear to have attracted much, if any attention. In some of the cotemporaneous Encyclopædias, the name is not mentioned—nor is it to be found in the edition of Johnson's Dictionary improved by Todd in the year 1820. This indifference was probably caused by the failure of the Surrey rail-road. At length, in the latter year, public attention was called to the subject by a Mr. Gray, who published a work, entitled, "Observations on a general Iron Railway, or Land Steam Conveyance," which gave rise to much discussion. But the project lay over till the ever-memorable year 1825, when the spirit of speculation pervaded the British nation, to an extent unparalleled except by the South sea bubble in 1719, and the Mississippi scheme in France in the following year.

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[*] Artist's Repository, vol. ii, sub voce.

[†] Tredgold on the Comparative Usefulness of rail-roads and canals, published in 1825, page 8.

[‡] Idem, page 17.

During this mania of speculation, applications were made to parliament for the incorporation of various rail-road companies. No less than sixty-four companies were formed for the intersection of the island of Great Britain in every direction, "and many of them in places where there is not much more need of a rail-road than over the Himalaya mountains."

As a matter of curiosity, I annex a list of thirty whose capitals were announced. The capitals of the remaining thirty-four were supposed to be about half of this amount, so that the capitals of the whole were nearly £30,000,000, equal to about $135,000,000. Iron rose in consequence about 75 per cent. in a few months.

List of the Railway Companies, with the capital of each.

Liverpool and Manchester	£400,000
Manchester and Leeds	500,000
Bristol and Bath	100,000
Birmingham and Liverpool	600,000
Grand Junction	2,000,000
Manchester and Bolton	150,000
Taunton	200,000
Norfolk, Suffolk, and Essex	1,000,000
London and Bristol	1,500,000
London and Birmingham	1,500,000
London, Portsmouth, and Southampton	1,000,000
London and Brighton, or Surrey, Sussex, and Hants	750,000
Leeds, Selby, and Hull	500,000
London and South Wales	1,000,000
Northern	2,500,000
Birmingham and Bristol	80,000
Kentish	1,000,000
Grand Western	3,000,000
East London	100,000
Canterbury	25,000
Severn and Wye	131,670
Stockton and Darlington	64,000
Stroud and Severn	50,000
Hibernian	1,000,000
Limerick and Waterford	300,000
Colchester and Halstead	40,000
Ipswich, Diss, and Eye	200,000
Exmouth to Exeter	35,000
Cromford and High Peak	150,000
Dyffryn Llynvi to Pwl Cawl	30,000
	£19,905,670

Not satisfied with pressing the great advantages of rail-roads over canals, in point of velocity, and their capability of being employed during the winter, the projectors held out the lure of an incredible reduction of expense—stating that the latter cost twice, three times, four times, and even five times as much as the former.

"In general, the formation of a canal costs *three times as much as a railway.*"—Wood on rail-roads, page 306.

"A railway costs only *three times as much as a turnpike—and a canal nine times.*"*—Gray's Observations on a general Iron Railway, page 206.

"A railway can, according to circumstances, be made at from a half to a fourth of the expense of a canal."—*Idem, page* 104.

"Railways may be constructed *at a fifth part of the expense of canals.*"—*Idem, Appendix, page* 181.

Whether these statements resulted from an attempt to deceive the public, or that the parties, as is frequently the case with projectors, deceived themselves, the fact is, the estimates were to the last degree erroneous. It appears that rail-roads for general transportation are about as costly as canals of equal capacity. The advantages of the former are, as above stated, great superiority in velocity, and their being fit for use in winter, when canals are locked up by the ice.

The applications to parliament for acts of incorporation, met with strenuous opposition from three sources—the powerful influence of the proprietors of canals—the discredit thrown on the subject by the deceptious statements of the reduced expense—and the aversion which a large portion of mankind have to all innovations—that class which religiously believes, that if a project were good and practicable, their fathers or grand-fathers would have discovered it. But the first class was by far the most influential. There was a host of powerful men combined, whose fortunes were in a great degree dependent on canals, and who spared neither pains nor expense to defeat the project, and were for a time successful in procuring the rejection of the applications for incorporation.

At length companies for constructing a rail-road between Darlington and Stockton, and between Manchester and Liverpool, were incorporated; the first has been completed for some time, and has proved eminently successful. In the second, some of the first men in the kingdom for wealth, talents and influence were engaged, and prosecuted it with great zeal and industry, so that it is now nearly completed. The company some time since offered a handsome reward, no less than £500, equal to $2250, for the best invention of a locomotive steam carriage, which should, at a public trial to be made on the 1st of October, 1829, draw on the rail a given weight with the greatest speed, at the least expense, and consume its own smoke.

This excited a spirit of enterprise and emulation among mechanical geniuses, and produced a variety of most ingenious machines, propelled with astonishing velocity: a statement of the results is annexed to the present paper.

In 1825, some public-spirited citizens of Philadelphia, placing implicit reliance on the whole of the statements of the English projectors, as well the fallacious estimates of reduced expense, as the real solid advantages of the system, most zealously advocated rail-roads to the exclusion of canalling. And such was their ardour and industry, that at one period there was some probability that the system of internal improvement by canals would be abandoned, or at least suspended for some time, in order to wait the result of the experiments about to be tried in England. This course was suggested by the late governor Shulze in his message at the session of 1826-7.

Hence arose a schism among the friends of internal improvement, which was carried on with a considerable degree of acrimony on both sides. Those in favour of canals confined themselves almost altogether to prove the fallacy of the estimates of the expense, made by the English projectors, which being manifestly erroneous, in so plain a case, they concluded that the other advantages held out, partook more or less of the same character of deception or self-delusion, and in either case those projectors were unsafe guides. They greatly relied on the failure of the Surrey rail-road, as admitted by Tredgold himself, one of the existing advocates for rail-roads—and contended that having proved an abortion in England, where mechanical skill, enterprise, and capital existed on so large a scale, it would be an unwise and pernicious policy to abandon a system with the practicability and advantages of which we were acquainted, for one of which the success was highly problematical. They contended that the very great advantages of canals were fully proved by the experience of all those countries where they had been tried, and particularly of the state of New York, where, from extreme depression, they had already produced a high degree of prosperity, partly by the expenditure among the citizens, of the money raised for canal purposes, but chiefly by facilitating intercourse between different parts of the state, and opening markets to portions of it from which they were before precluded by distance. After considerable discussion, the sense of the state settled down in favour of the canal system, and in the Convention that met at Harrisburg in 1826, the question of rail-roads was never publicly brought forward, and but rarely a subject of private conversation. They were considered as visionary, so far as regards general conveyance.

It is not worth while, nor would it answer any good purpose, to institute an inquiry whether it would or would not have been better to have waited two or three years to ascertain the result of the English experiments, to see whether they would prove as eminently beneficial as their friends anticipated. But it certainly is worth while, and prudence dictates, to reflect seriously now whether any canal not commenced should be undertaken, or a rail-road substituted for it. Two of the great advantages held out by the original projectors, superior velocity, and capability of being used the whole year, are now fully established; the velocity, by the recent experiments in England with locomotive engines; and the other advantage by the experience of the Quincy rail-road, near Boston, the transportation on which continues uninterruptedly through the severity of the northern winters.

The extreme depression in England of canal stock, and the extraordinary rise in that of rail-roads, afford an unerring indication of the state of public opinion on the subject in that country. And although the ravening spirit of speculation on the one side, and popular panic on the other, pressing large quantities of canal stock into the market, may have produced a portion of this effect; yet making due allowance for both these causes, enough remains to prove the great advantages of the rail-road system, and render caution and circumspection indispensably necessary in deciding on the question of commencing any new canals at present.

(To be continued.)

RAILWAY EXPERIMENTS.

For several days past, the Novelty steam carriage of Messrs. Braithwaite and Ericson, has been exercising on the level part of the Railway at Rainhill. The ingenious inventors confined their attempts, in the first instance, to trying the steam at various degrees of pressure, and at various rates of speed, without a load; but on Monday a succession of experiments were made during the whole day with loaded wagons, alternate use being made of those on Mr. Stevenson's, and those on Mr. Winan's principle. The loads were gradually augmented and the velocities varied, and we learn, with a satisfaction which will be shared by those who have taken an interest in the success of the Novelty, that the final result was that this engine drew a gross weight of 35 tons, being nearly eleven times her own weight, at the rate of 12½ miles per hour. In the course of the experiments, it was ascertained, that the actual friction on a large working scale was 9 lbs. in the ton, including the resistance arising from the irregularities of the road, which, having been hastily prepared for the original trials, is now rather out of order, the rails being, in fact, a series of short inclined planes. We understand Messrs. Braithwaite and Ericson give a decided preference for the wagons constructed on Mr. Winan's principle, as reducing the friction to a minimum, and being also peculiarly adapted for safety in the conveyance of passengers. We are fully persuaded, that as soon as the Novelty has a space of five or six miles to proceed upon, so that the full momentum may be acquired and kept up, that the velocity will be greatly augmented, and that the load may be considerably increased, as, from the peculiar mode of generating the steam of the Novelty, the engine labours under great disadvantages in having to stop and turn so frequently as the present limited space yet laid on the railway now requires.—*Liverpool Courier, Dec.* 23.

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* The absurdity of this statement is manifest from the experience of the United States. The turnpike roads in the middle states, made with broken stone, average about $9000 per mile—our canals less than $20,000—and there is reason to believe, that rail-roads for general conveyance, with double tracks, will not fall much, if any thing, short of the latter average.

LADIES' DEPARTMENT.

(From the Journal of Health.)

CORSETS!

When we breathe we take into the chest, or inhale, and give out, or expire, a certain quantity of air, which can be measured by breathing through a curved tube into a bell glass full of water, inverted over a pneumatic tub. Dr. Herbst, of Gottingen, has lately been performing some curious experiments in relation to the quantity of air that is breathed. Now the commonest understanding will appreciate from them the value and comfort of full and unrestrained breathing. Dr. Herbst says, that a middle sized man, 20 years old, after a natural expiration or emission of air, inspired or took in 80 cubic inches, when dressed, and 106 when his tight dress was loosened. After a *full* dilatation of the chest, he inhaled 126 cubic inches when dressed, and 186 when undressed. Another young man aged 21, after a natural expiration, took in 50 while dressed, and 96 when undressed. Had Dr. Herbst made his observations on some of the ladies, who carry the use of corsets to extremes, we apprehend that he would have obtained results of a nature really alarming. If the wheel of fashion, which revolves even more rapidly than that of fortune itself, would bring up something oriental in costume, it would go far towards perfecting the objects of this journal—the public health.

At the Hotel-Dieu, the great hospital at Paris, a young girl of eighteen, lately presented herself to M. Breschet for his advice.—On the right side of her throat, she had a tumour of variable size, but never bigger than one's fist: it reached from the collar bone as high as the thyroid cartilage, (called in common language Adam's apple:) when pressed downwards it wholly disappears, but returns as soon as the pressure is removed; it is indolent, soft, and elastic. It is observed to be largest when the chest *is tightly laced in corsets.* In short, by placing the ear on it, the murmur of respiration can be heard in the tumour, which proves that a protrusion of the lungs has taken place; or in other words, that this poor girl has been laced so tightly that her lungs, having no longer sufficient space in their natural situation, are squeezed out of it, and are forcing their way up along her neck.—We often meet ladies dressed so cruelly, that we wonder where their lungs and livers are gone to.

MISCELLANEOUS.

VIRGINIA TOBACCO TRADE.

The following particulars relative to the tobacco trade in Virginia, we extract from the Report made by the Auditor of public accounts in that state.

The amount received at the Treasury from inspectors of tobacco, and superintendents of public warehouses, for duty and storage on tobacco, from November, 1808, to October, 1829, was	$215,024 12
The lowest amount in any one year was that received from November, 1808, to October, 1809.	615 39
The receipts from October, 1813, to October, 1814.	742 03
The highest amount in any one year was that received between October, 1809, and October, 1810,	28,178 73
The receipts from October, 1827, to October, 1828,	16,412 36
Between Oct. 1828, and Oct. 1829,	14,325 34
The amount of warrants drawn upon the fund for public warehouses, from the 1st of Oct. 1808, to Oct. 1829,	63,229 05
The highest amount drawn was in 1812,	9,051 97
The lowest amount drawn for was between Oct. 1816, and Oct. 1817.	370 66
The amount drawn from Oct. 1827, to Oct. 1828,	985 63
The amount drawn from Oct. 1828, to Oct. 1829,	593 23
The number of hhds. of tobacco on which duty has been paid in twenty-eight warehouses, from which returns have been received from Oct. 1825, to 1829,	152,098 00
The number from Oct. 1825 to 1826,	26,586 00
From 1828, to 1829,	34,359 00
The surplus remaining, of duties received in fifteen of these warehouses in the same year, after paying expenses, was	44,788 15
The surplus remaining in the year from these, 1827, to 1828,	13,924 37
From Oct. 1827, to Oct. 1828,	9,196 04
The aggregate of charges made on the fund for public warehouses by the remaining 13 of the 28, in consequence of the receipts not being sufficient to pay expenses within the same years,	2,693 66

OF THE SUN.

On the nature of the sun there have been various conjectures. It was long thought that he was a vast globe of fire, 1,384,462 times larger than the earth; and that he was continually emitting from his body innumerable millions of fiery particles, which being extremely divided answered for the purpose of light and heat without occasioning any ignition or burning, except when collected in the focus of a convex lens, or burning-glass. Against this opinion, however, many serious and weighty objections have been made, and it has been so pressed with difficulties, that philosophers have been obliged to look for a theory less repugnant to nature and probability. Dr. Herschel's discoveries, by means of his immensely magnifying telescope, have, by the general consent of philosophers, added a new habitable world to our system, which is the *sun.* Without stopping to enter into a detail, which would be improper here, it is sufficient to say, that these discoveries tend to prove, that what we call the sun is only the atmosphere of that luminary; "that this atmosphere consists of various elastic fluids that are more or less lucid and transparent; that, as in the clouds belonging to the atmosphere itself, so we may suppose that, in the vast atmosphere of the sun, similar decompositions may take place, but with this difference, that the decompositions of the elastic fluids of the sun, are of a phosphoric nature, and are attended by lucid appearances, by giving ought light." The body of the sun, he considers as hidden generally from us, by means of this luminous atmosphere; but what are called the *noclucæ* or spots on the sun, are real openings in this atmosphere, through which the opake body of the sun becomes visible; itself is not fiery nor hot, but is the instrument which God designed to act on the caloric or latent heat; and that heat is only produced by the solar light acting upon and combining with the caloric or matter of fire contained in the air, and other substances which are heated by it.

OF THE MOON.

There is scarcely any doubt remaining in the philosophical world, that the moon is a habitable globe. The most accurate observations that have been made with the most powerful telescopes, have confirmed the opinion. The moon seems, in almost every respect, to be a body similar to our earth, to have its surface diversified by hill and dale, mountains and valleys, rivers, lakes and seas.

There is the fullest evidence that our earth serves as a moon to the moon herself, differing only in this, that the earth's surface is thirteen times larger than the moon's, so the moon receives from the earth a light thirteen times greater in splendor than that which she imparts to us; and by a very correct analogy, we are led to infer, that all the planets, and their satellites, or attendant moons, are inhabited; for matter seems only to exist for the sake of intelligent beings.

OF THE STARS.

The stars, in general, are considered to be suns, similar to that in our system; each having an appropriate number of planets moving round it; and, that, as these stars are innumerable, consequently there are innumerable worlds, all dependent on the power, protection, and providence of God. Where the stars are in great abundance, Dr. Herschel supposes they are *primaries* and *secondaries;* i. e. suns revolving about suns, as planets revolve about the sun in our system. He considers that this must be the case in what is called the Milky Way; the stars being there in prodigious quantity. Of this he gives the following proofs. In August 22, 1792, he found that in 41 minutes of time, no less than 258,000 stars had passed through the field of view in his telescope. What must God be, who has made, governs, and supports so many worlds!

Mineral Wealth of the West.

A writer in the Ohio State Journal mentions, that *iron* is found in great abundance in the lower section of the Scioto Valley. On the waters of Bush creek, in Adams county, three blast furnaces are already in successful operation, at which upwards of 1500 tons of castings are made annually. The greater portion of it is manufactured into bar iron, nails, &c. at the iron forges on Paint creek. The iron of those forges is said to be equal to the best samples of Juniata or Swedish iron. Twenty years ago, the iron used in that neighborhood was brought from Western Pennsylvania, and sold at from 16 to 25 cents per lb. At this present time Scioto iron of equal quality is retailing at 6¼ cents per lb. A number of furnaces and forges are also in operation, near the mouth of the Scioto river, and higher up on the banks of the Ohio, near the *French Grant.* The ore is found in abundance throughout the whole region.

THE FARMER.

BALTIMORE, FRIDAY, FEBRUARY 5, 1830.

☞ Much as has been said about rail-roads lately, the subject is far from being exhausted. In fact we appear to be just beginning to discern the various modes and the extent to which that potent agent is applicable to manufactures and transportation. From one of our most able, disinterested and public spirited writers, on things of national concern, we have received an "ESSAY ON RAIL-ROADS," under the signature of HAMILTON, the first part of which is inserted in this number. Perhaps no one had more (if as much) agency than he in the present system of internal improvement, chiefly by canals, in Pennsylvania. But as few improvements can escape his observing and investigating mind, and as he measures the value of information only by its convertibility to the happiness of society; instead of putting his lights under a bushel, he sends them forth gratuitously as "lamps to the feet" of the public. Apprehending now, that rail-roads may advantageously supersede canals, he disseminates, far and wide, accounts of recent illustrations to that effect in England: and does us, as on many former occasions, the favour to furnish us with his views; which, if not always infallible, are invariably patriotic. In a letter he says, that he regards the late experiments with locomotive engines on rail-roads in England, as constituting an *era* not less striking and important than the invention of steam boats.

By Governor Lincoln of Mass. a statesman of inquisitive and enlarged mind, and liberal views, we have been favoured with the report of the committee on Internal Improvement. Much of it consists of an account of the Baltimore and Ohio Rail-road—its progress, prospects, &c. &c. from which their strongest arguments are deduced in favour of the rail-road system. They acknowlege in the most grateful terms, the politeness of their reception by the Baltimore and Ohio Rail-road company, and the fulness and value of the explanations given by it on every point, inserting at length the answers of Col. Long to various questions involving the general principles of rail-road structures. These answers appear to us to be calculated to throw much useful light upon the subject. That sort of safe and enduring light which can only be the result of severe mathematical studies, and which must prove of great value in all undertakings of a similar character. It gave us great pleasure to see, that gentlemen coming from a quarter of our country, distinguished like Boston as the seat of science, and the theatre of the greatest advances in education, agriculture, commerce, and manufactures, were received in the way in which they are wont to receive those who visit them for similar objects. The birth place of Franklin and of Hancock, of Warren and of Otis, of Adams and of Dexter, must ever be the land of learning and patriotism,—with her fine libraries and public schools—her great teachers to instruct, and her commerce to polish, her sons can rarely look to us for information, or means to accelerate public enterprises; but come when they may, may they ever be received with the courtesy and hospitality that characterise a region of our country so highly cultivated in those arts and institutions that give comfort to life, and embellishment to society.

☞ THE SUGAR CROP.—A correspondent at Franklin, Louisiana, under date of January 10th, writes to the Editor, that the sugar crop the past year was miserable—not more than a third as much as the year before—*i. e.* from 30 to 35,000 hogsheads. On two plantations in his neighborhood, where there were made upwards of four hundred hogsheads the year before last, not two hundred were made last year. Our correspondent with about sixty working hands, made 37 hogsheads—"yet," says he, "they think at the north we are making fortunes."

☞ HORTICULTURE.—Amongst the variety of indications that go to shew the march of improvement, and the multiplication of the sources and means of human comfort and subsistence, it is gratifying to notice the increased number of associations for introducing valuable seeds and plants, fruits and flowers from abroad; in other words the horticultural societies which are forming in different parts of the United States. As might be expected, the spirit of amicable rivalry diffused by them has already resulted in fine displays of all the products of the garden and the nursery.

Our Baltimore market has been for years remarkable in respect to the excellence of common vegetables, melons and celery, but deficient in fruits and flowers, with some very creditable exceptions: but our excellence has been the fruit of seeds and skill brought by emigrants, in times of revolution, from the West Indies, and to the very favourable soil of the Magothy river and Annapolis; a yet higher degree of improvement in every department of horticulture, would be certainly and speedily developed by the establishment of a Horticultural Society, instituting as it would do, periodical exhibitions at the market, or the exchange, of the best specimens that could be produced. Is it not, in some sort, a reproach that no such society has been organized amongst us? Would not almost every citizen be willing to contribute a mite, say one dollar per year, to sustain such an association? Assuredly every lover of fine fruit and of good vegetables, to say nothing of amateurs of flowers, would derive an immediate equivalent from the improvement that would be quickly realized in the supply of these articles.

Nearly a column of a late number of the Albany Argus, is filled with an account of the various fruits and flowers, exhibited there under the auspices of a horticultural society, which seems to have pursued its useful objects with a zeal as laudable as it has been efficient—we have room only for the following extracts.

ALBANY HORTICULTURAL SOCIETY.

This society was organized during the autumn of 1828, since which time it has been in successful operation. Though it had to contend with many untoward circumstances, incident to the infancy of an institution of this kind; its influence upon the state of horticulture in this city and its vicinity is already apparent.—It is confidently believed that an increase of effort on the part of the members, will lead to still further improvement in this interesting branch of industry. The following abstract of the proceedings of the inspecting committee of the last year, is offered with a view of directing the attention of the public to the objects for which this society was formed.

The inspecting committee were charged with the examination of the various articles presented for premiums, for which purpose they held meetings on the 2d and 4th Tuesday of each month, from April to October inclusive. The following articles were exhibited at these meetings as designated.

April 25th.—An exhibition of green-house plants and flowers was made in the hall of the academy by Mr. Wilson, Mr. Wilcox and several ladies of the city.—Fine blanched rhubarb, three feet in length, was also presented by Mr. Buel.

June 20th.—Exhibition in the hall of the academy. Seventy varieties of hardy roses, embracing the white and red moss, and almost every shade of colour, from what are termed the black, to the chaste *unique*, or white provence; and three splendid boquets of flowers from the Albany nursery—*Messrs. Buel and Wilson.*

Eight sorts of carnations, Rosa rubifolia, Rhododendren maximum, Spigelia marilandica, and a variety of other flowers—*Mr. Wilson.*

July 13th.—Gooseberries, (12 of which weighed 5 ounces;) red currants, (11 bunches weighing 4 ounces;) red Antwerp raspberries, and a large and splendid boquet; consisting of double hollyhocks of various colours, double flowered pomegranates, &c. &c. from the garden of Gen. Van Rensselaer, sen.—by *Mr. Churnside.*

July 28th—Cabbage, weighing 24 pounds; 6 beets weighing 9 pounds; 8 onions 2¾ pounds; full grown peppers and several other culinary vegetables, in fine perfection, raised without artificial heat—by *Mr. S. Stafford.*

From the garden of Gen. Van Rensselaer, an early Manchester cabbage, weighing 5¾ pounds a summer squash 4 pounds, and a new species of Rudbeckia.

Double and perrenial sun flowers, Datura arborea, and a variety of China and hardy monthly roses, from the Albany nursery—*Messrs. Buel and Wilson.*

September 8th.—Grapes of a superior quality, as follows, viz: one bunch white Tokay, 18 ounces; one bunch sweet water, 15¼ oz., and a few bunches of the black close clustered Burgundy, very fine—by *Mr. Churnside.*

Two clusters of the native Isabella grapes, weighing 9 and 7 ounces—*Mr. R. M. Meigs.*

Two fine musk melons—*Mr. Robinson.*

A fine water melon; four red onions weighing 2 lbs. 2 oz.; 4 white onions weighing 2 lbs, and a bunch of 10 roots of salsify or vegetable oyster, of remarkable size—*Mr. J. Godfrey.*

September 22d.—A splendid collection of peaches of the finest kinds, from the garden of Mr. J. Thompson, of Catskill; the Wellington and Dornton pippin, from the garden of the Rev. J. Prentice, of Athens—*Mr. Buel.*

A bouquet of various flowers; several varieties of apples; a Minorca melon, &c.—*Mr. Slingerland.*

Four heads of brocoli, weighing from 2¾ to 4¼ lbs.—*Mr. Wilson.*

A beet weighing 11½ lbs.—*Mr. Hancock.*

October 20th.—Double purple jacobea; pyrus; japonica, in full flower, from open ground; monthly and trumpet honey suckles, roses, &c., and sundry vegetables, from the Albany nursery.

Agreeably to the recommendations of the inspecting committee, premiums were awarded by the society to the following gentlemen.

Judge Buel, Barent Bleecker, Isaac Denniston, D. B. Slingerland, E. C. Delavan, C. N. Bement, P. Clark, John N. Quackenbush, R. M. Meigs, J. Wilson, G. Wilcox, Thos. Dowling, G. Churnside and D Robinson.

A number of the above gentlemen remitted their premiums, for the benefit of the society's fund, and for the purpose of procuring drawings and paintings of the more superior fruit that shall be exhibited at the stated meetings for the next season.

LATEST FOREIGN NEWS.

By the Hannibal at New York, London papers are received to the 3d January. The weather was very cold in England, and the navigation of the Thames closed by ice. In Scotland the roads were almost impassable, in consequence of the great depth of snow. The thermemeter had been as low as 22° below zero, at Paris. The Dutch papers up to the 30th of December, speak of the extreme severity of the weather; most of the rivers were frozen over, and heavy snow had retarded the progress of the stage; the mail coaches were compelled to use 6, 8, and even 12 horses.

There is no political news by this arrival, of any consequence to our readers. Prince Leopold of Saxe Cobourg, it was currently reported, would be raised to the throne of Greece.

Don Miguel has sent a ship load of his disaffected subjects into exile in Africa; and has since imprisoned a great number more, at the moment when they were embarking for voluntary exile to the island of Terceira.

From the London New Price Current of Dec. 29.

London Market.

Cotton. The Cotton market is without briskness; the purchases for the week ending last night, are quite inconsiderable. 1760 Surat, 3¼ a 3¾; 100 Bengal 3¼ a 3 3-8. There are more inquiries after Cotton; all the sales we have enumerated were effected on Saturday and yesterday.

The Markets.

The Liverpool dates are to the 1st January. The stock of Cotton on the 31st of December, was 203,000 bales—this was a larger amount than was expected; the market was rather flat during the afternoon of the 31st.

Liverpool, Dec. 28.

Cotton—The sales of cotton to-day amount to 25,000 bales, at fully 1-8d per lb. advance on last Tuesdays prices. The holders appear to hold for a further advance.

Liverpool, Dec. 31.

Stock of Cotton at Liverpool at the close of the years 1828 and 1829.

	1828.	1829.
From the U. States,	156 170 bags	98.500 bags
Brazil,	94 550	75.200
Demarara,	1.300	450
Barbadoes,	400	1,650
Com. W. India,	820	100
Egyptian,	24.230	16.900
Surat,	7.530	5 400
Bengal,	4 540	4.000
All other kinds,	5 810	2.050
	295.470	203.250
Less on hand at present,		92.220

This table suggests several important considerations; first, the surprising extent of the importation, when, after sales of 15,000 bags or upwards a week, that have been going for some time, there should still remain above 200,000 unsold; next the insignificance of the supplies from our West India Colonies, and the magnitude of those from the United States and Brazil. Of cotton from India the quantity on hand does not bear a fair proportion to the average supplies, the heavy losses sustained since 1826 having lessened last year's imports from that country. Of Egyptian cotton the supply has not of late been so great as in 1825; but lower Egypt being a continued level, and easily irrigated, seems very well adapted for the culture of this plant; labour also is considerably cheaper there than in Brazil or the United States.

Liverpool Corn Exchange, Dec. 29.

The heavy importations of Irish grain noted in our last, were considerably augmented in the early part of the week by further large supplies from the same country, and the undermentioned list exhibits a good weekly import. The deliveries of English wheat by the neighbouring farmers were, however, much lighter than previously; and the last two or three days, owing to adverse winds, the arrivals have been very limited.—Though our granary stocks are so very light, not exceeding 12,000 qrs. of wheat, and 10,000 qrs. of oats, the importers continue usually averse to store, and nearly the whole of the late arrivals have been pressed for sale; the consequence was a further small reduction in the value of the principal articles of the trade. Wheat was on Saturday 1d to 2d, and oats ½d to 1d per bushel cheaper. At this abatement both the town and country millers purchased freely, and the transactions were to such an extent as to considerably relieve the market. Import of grain into Liverpool for the week ending December 28: Wheat, 6,595 qrs; oats, 16,200 qrs; barley, 800 qrs; flour, Irish &c., 1,505 sacks; oatmeal, 1,487 loads. Exported: 187 qrs. of oats and 515 brls of flour.

Prices Current in Philadelphia, January 25.

Bees-wax, yellow —. a .22; *Beans*, bushel $1.00 a 1.25, *Beef*, mess 10 a 10.50, prime 8 a 9.00, cargo 7; *Butter*, No 1, .8 a -, No. 2, 6. a--; *Cotton*, New Orleans .10½ a .12½; Upland 10. a .11½, Tennessee 9½ a .10½, Alabama 9½ a 10½; *Feathers*, South. .33 a .34, West. .31 a .32; *Flax* .7½ a .8. *Flour*, sup. 4.50; fine, 4.12½ a —; Rye 3.25 a 3.75; Corn meal, hds. 11.00 a ——, bls. —— a 2.06¼; *Flaxseed.* cask 10.00; bu. 1.30 a ——; *Grain*,—Wheat 85 a 92—Rye .50 a.52, Corn l. c. white, .36 a .38, l. c. yellow, .38 a .40, u. c. round, .40 a .44; Oats .25 a .30, Barley, Pa. .48 a .50; do. East. .— a .—; black-eyed Peas .40 a .50. *Hams*, Jersey .8 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .5 a .6½; *Oil*, linseed, 66 a 67; *Pork*; mess, 11.25 a ——, prime 10.50 a 11; cargo 9.00 a 9.50, *Rice*, 2 50 a 3.25; *Tobacco*, Kentucky .5 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .18 a .22, half blood .26 a .—; three quarters blood .28 a .32, full blood 28 a .32; unwashed, generally 6 cents less, according to quality.

TO MERCHANTS AND PLANTERS.

Nathaniel F. Williams tenders his services to his friends and the public, to transact business on commission, and respectfully refers to the gentlemen named below, for his qualifications.

References.

Hon. Samuel Smith, } *Senators in Congress, from Md.*
" E. F. Chambers, }
" John Forsyth, *Senator in Congress, from Geo.*
" Daniel Webster, *Senator in Congress, from Mass.*
" Lewis Williams, *Represent. in Cong. from N. C.*
" Warren R. Davis, *Represent. in Cong. from S. C.*
Messrs. Macdonald & Ridgely, }
William Lorman, Esq. } *Baltimore.*
Luke Tiernan, Esq. }
Isaac McKim, Esq. }

Baltimore, February 5, 1830.

HERBEMONT'S MADERIA.

Cuttings of this valuable Grape can be had by applying to the subscriber, at whose residence it may be seen, the coming season, in great perfection. To facilitate the extensive culture of the vine, Mr. Herbemont has commenced a nursery on a large scale, and will have for sale, next winter, some thousands of vines of the finest kinds, both for wine and for the table. These may be obtained through the same agency, at rates that will fully cover expenses, and no more. The disappointments so often and so justly complained of, when fruit is obtained from a distance, can hardly occur in this case.

G. FITZHUGH, Jr.

CLOVER SEED, &c.

The subscriber has on hand for sale 180 bushels of Clover Seed, the greater part of which is very superior, weighing 63 lbs. to the bushel. Also, Orchard Grass Seed of fine quality. Likewise, 500 bushels of Northern Potatoes, Whites, Blues and Mercers, for seed.

A general assortment of the Messrs. Landreth's superior Garden Seeds, which he will furnish at wholesale or retail. Can also furnish to order, Fruit and other Trees, Plants and Bulbous Roots from the Messrs. Landreth's Nursery. He has likewise on hand, his usual supply of Agricultural Implements, which, he trusts, are too well known and appreciated to require recommending. He has lately become the Agent for Messrs. A. H. & L. Robins' Corn Planter, which is calculated for planting various kinds of seeds. He is also invested with the power to dispose of the patent right for the Corn Planter in any part of this State and East Virginia. All communications by mail (not orders) must be *post paid*, and they will receive immediate attention.

JONATHAN S. EASTMAN.
No. 36, west Pratt street,
Between Charles and Hanover streets.

ALMANAC.

1830. February.		Sun. Rises.		Sun. Sets.		Length of days.		Moon sets.	
		H.	M.	H.	M.	H.	M.	H.	M.
Saturday,......	6	6	53	5	7	10	14	5	00
Sunday,........	7	6	52	5	8	10	16	5	55
Monday,.......	8	6	51	5	9	10	18	6	30
Tuesday,......	9	6	49	5	11	10	22	7	15
Wednesday,..	10	6	48	5	12	10	24	rises.	
Thursday,.....	11	6	47	5	13	10	26	9	03
Friday,.........	12	6	46	5	14	10	28	9	55

Moon—Full Moon, 7th, 3h. 04m. Even.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—The harbour being closed with ice, there is little business doing. Howard street flour from wagons is selling at $4.25—few if any sales from stores, and our quotation maybe considered nominal. There is little doing in grain; beef is more brisk at last week's rates. The season for drove pork is nearly over, the last sale we heard of was at $5.

Tobacco.--Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12 00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week comprise 177 hogsheads Maryland, 12 hhds Virginia: 10 hhds Ohio and 4 hhds Pennsylvania.—Total 203 hhds.

Flour—best white wheat family, $5.75 *a* 6.25—super. Howard st. 4.37½ *a* ——city mills, 4.00;—Susquehanna, ——. Corn Meal, bbl. —— *a* 2.25—Grain, best red wheat, .75 *a* .80; best white do. .80 *a* .85; ordinary to good, .60 *a*. .70—Corn, old white, .38 *a* 39; yel. .40 *a*—; new .40 *a*—Rye, .46 *a* 48: Oats, .31 *a* .33; Beans, 90 *a* 1.00—Peas, .65 Clover seed, 5.00 *a* 5.25 —Timothy, 2.50—Orchard Grass, 2.00 —Herd's, —- *a* 1.50—Lucerne .37½ *a* .50 lb.—Barley, ——Flaxseed, 10.6 t.12½-Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12 —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8¼ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .21 *a* .21½; in bbls. .22½ *a* 23—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.—Hemp, Russia, ton, $215 *a* 220; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, —— *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6.00 *a* —— No. 2, 5.62½ *a* —No. 3, 3.25 *a* 3.75—Bacon, hams, Balt. cured, .9 *a* .9½—Feathers, .30 *a* 31—Plaster Paris, cargo price per ton, 5.00: ground, 1.25 bbl.— Prime Beef on the hoof, .4.00 *a* 4.50 —Pork on the hoof, 4.75 *a* 5.00—Pine Wood, by the vessel load, 2.75—Oak Wood, 3.75—Hickory, 5.50

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

(From Loudon's Encyc. of Agriculture.)

Of the Management of Lands permanently under Grass.

In every country by far *the greater proportion of perennial grass lands is the work of nature;* and it is not till an advanced period in the progress of agriculture that much attention is paid to their management. But as the extension of tillage, planting, and the formation of parks and gardens, limits the range of the domestic animals, their food becomes more valuable; and it then becomes an object to increase it by the culture of roots and artificial herbage on some lands, and by the improved management of the spontaneous productions of others. In a highly cultivated country like Britain, therefore, those lands retained in grass either are, or ought to be, such as are more valuable to the owners in that state than they would be in any other. Such lands naturally divide themselves into two classes: those which are fit either for mowing or pasture; and those which are fit for pasture only.

Perennial Grass Lands fit for mowing, or Meadow Lands.

Under the term meadow, we include all such land as is kept under grass chiefly for the sake of a hay crop, though occasionally, and at particular seasons of the year, it may be depastured by the domestic animals; and we usually include under this term the notion of a greater degree of moisture in the soil, than would be thought desirable either for permanent pasture or lands in tillage. Where hay is in great demand, as near large towns, and especially if a good system of cropping be but little understood, a great deal of arable land may be seen appropriated to hay-crops; but the most valuable meadows are such as are either naturally rather moist, or that are rendered so by means of irrigation. There are three descriptions of these meadows; on the banks of streams and rivers; on the uplands, or more elevated grounds; and bog-meadows; and each of these kinds may be stocked with grasses either naturally or by art, and may be irrigated by one or other of the different watering processes already described.

River-meadows, or those which are situated in the bottoms of valleys, are in general by far the most valuable. They are the most productive of grass and hay, yielding sustenance for cattle through the summer and the winter, and producing an everlasting source of manure for the improvement of the adjoining lands. The soil is deep and commonly alluvial, having been deposited by water, or washed down from the adjoining eminences; the surface is even from the same cause; and, what is of considerable importance, has a gradual declivity or surface-drainage to the river or stream, which almost invariably flows in the lowest part of every valley, and which is essential to this description of meadow. The principal defects to which such lands are liable are, the oozing out of springs towards their junction with the rising lands, and the inundations of the river or stream. The former evil is to be remedied by under-draining, and the latter by enbanking. Such meadows are generally stocked with the best grasses; and their culture consists of little more than forming and keeping open a sufficient number of surface-gutters or furrows to carry off the rain-water; rooting out such tufts of rushes or bad grasses and herbage, as may occasionally appear; destroying moles, and spreading the earth they throw up; removing heavy stock whenever their feet poach the surface; shutting up, bush-harrowing, and rolling at the commencement of the growing season; and finally so adjusting the mowing and pasturing as to keep the land in good heart without laying on manure.

The most suitable meadows for irrigation are of this description; the necessary drains and other works are executed with greater care, and with less expense, and the management, as we have seen, is also comparatively easier than in watering sloping surfaces.

Upland meadows, or mowing lands, are next in value to those of valleys. The soil is either naturally good, and well adapted for grass, or, if inferior by nature, it is so situated as to admit of enriching it by ample supplies of manure. Of this last description are the upland meadows, or hay lands of Middlesex; which, though on the most tenacious, and often stony clays, are yet, by the abundance of manure obtained from the metropolis, rendered as productive as the best upland soils employed as hay lands. The roots of perennial grasses, whether fibrous or creeping, never strike deep into the soil, and thus deriving their nourishment chiefly from the surface top dressings of well-rotted manure repeated on the same field for centuries, forms at last a thin black stratum among the roots of the grass, which produces the most luxurious crops.

The culture of upland meadows requires more attention and expense than those of valleys; being more difficult to drain, and requiring regular supplies of manure. The irregular surface of uplands is apt either to contain springs or to stagnate the surface water; the first produces marsh plants and coarse herbage, and the latter destroys or weakens whatever is growing on the surface, and encourages the growth of moss. Both evils are to be remedied by the obvious resources of drainage. Moss is a very common enemy to grass lands, and is only to be effectually destroyed by rich dressings of manure. Rolling, and top-dressings of lime and salt, have been recommended for destroying it; but there is no mode by which it can be subdued and kept under, but by adding strength to the grass plants, and thereby enabling them to suffocate their enemy. Moss is never found on rich lands unless they are completely shaded by trees. Besides mole-hills, upland meadows, when neglected, are frequently troubled with ants, which form heaps or hillocks of grass and earth, more injurious and more difficult to get quit of than those of moles. The mode of taking moles is a simple operation, and will be described in the proper place: that of destroying ants is more complicated and tedious, and being peculiar to grass lands, shall here be described.

Ant-hills, or habitations, are injurious to meadow lands, by depriving the farmer of a crop in proportion to the surface they occupy, and by interfering with the operations of rolling and mowing. They consist of little eminences, composed of small particles of sand or earth, lightly and artfully laid together, which may often be computed at a tenth part, or more, of old grass lands. And in some places, where negligence has suffered them to multiply, almost half of it has been rendered useless; the hills standing as thick together as grass-cocks in a hay field: and what is very surprising, this indolence is defended by some, who affirm, that the area or superfices of their land is thereby increased; whereas it is well known that very little or no grass ever grows thereon, and, therefore, if the surface be increased, the produce is proportionably decreased.

In order to remove ant-hills, and destroy the insects, it has been a custom in some places, at the beginning of winter, and often when the weather was not very cold, to dig up the ant-hills three or four inches below the surface of the ground, and then to cut them in pieces, and scatter the fragments about: but this practice only disseminates the ants, instead of destroying them, as they hide themselves among the roots of the grass for a little time, and then collect themselves together again upon any little eminence, of which there are great numbers ready for their purpose, such as the circular ridges round the hollows where the hill stood before. It is, therefore, a much better method to cut the hills entirely off, rather lower than the surface of the land, and to let them lie whole at a little distance, with their bottom upwards: by this means the ants which are known to be very tenacious of their abodes, continue in their habitations until the rains, by running into their holes of communication, and stagnating in the hollows formed by the removal of the hills, and the frosts which now readily penetrate, destroy them. If a little soot were thrown on the places, and washed in with the rains, it would probably contribute greatly to the intended effect. The hills, when rendered mellow by the frost, may be broken and dispersed about the land. By this method of cutting the hills, one other advantage is gained; the land soon becomes even and fit for mowing, and the little eminences being removed, the insects are exposed to the wet, which is very disagreeable and destructive to them. It would, perhaps, be a better practice than that of suffering the hills to remain on the ground, to collect the parts of them which have been pared off into a heap, in some convenient place, and then form them into a compost, by mixing a portion of quick-lime with them. In wet weather these insects are apt to accumulate heaps of sandy particles among the grass, called by labourers sprout hills, which quickly take off the edge of the scythe. These hills, which are very light and compressible, may be conveniently removed by frequent heavy rolling.

In the Norfolk mode of cutting and burning ant-hills, the process is, to cut them up with a heart-shaped sharp spade or shovel, in irregular lumps of from ten to fifteen inches in diameter, and from two to five or six inches thick. These are to be turned the grass side downwards, until the mould-side is thoroughly dry, and then to be set the grass side outwards, until they are dry enough to burn. The fire may be kindled with brushwood, and kept smothering, by laying the sods or lumps on gradually, as the fire breaks out, until ten or fifteen loads of ashes are raised in one heap, which the workmen formerly completed for a shilling or eighteen pence each load of ashes. The places from which the hills have been removed may be sown with grass-seeds. Besides the destruction of the ants, this is a ready, though by no means an economical way of raising manure, and in some cases ought not to be neglected, on grounds where such a process is required. On some soils ashes are found in themselves an excellent manure; and, perhaps, generally, ashes raised in this way, would be found highly advantageous as bottomings for farm-yards and dunghills.

Where grass lands are sufficiently rolled with a heavy roller once or oftener every year, no ant hills will ever be formed greater than the roller can compress, and consequently no injury will be sustained. In this, as in most other cases of disease, proper regimen is the best cure. In domestic economy, various directions are given for destroying bugs, lice, and other vermin; but who ever had any to destroy, who attended properly to cleanliness?

The surface of some grass lands that have been long rolled are apt to get into that tenacious state denominated *hide bound.* When this is the case, scarifying the turf with a plough, consisting only of coulters, or harrow-teeth, so that the whole surface may be cut or torn, is to be recommended. That tenacious state, rolling tends to increase; whereas, by scarifying, the surface is loosened, and the roots acquire new means of improved vegetation. This operation seems particularly useful, when it precedes the manuring. When hay land of a retentive quality is pastured by cattle or horses in wet seasons, it receives much injury from their feet, and becomes what is technically called poached. Every step they take, leaves an impression, which rain fills with water, and then the hole stands full like a cup.

This wetness destroys the herbage, not only in the hole, but that also which surrounds it, while at the same time the roots of the grasses, as well as the ground, are chilled and injured. No good farmer, therefore, will permit any cattle to set a foot on such land in wet weather, and few during the winter months, on any consideration. Sheep are generally allowed to pasture on young grasses in dry weather, from the end of autumn to the beginning of March; they are then removed, and it rarely happens that any animal is admitted till the weather be dry, and the surface so firm as to bear their pressure, without being poached or injured.

In *manuring upland meadows*, the season, the sort, the quantity, and the frequency of application are to be considered.

RED CARROT.

Philadelphia, February 1*st*, 1830.

J. S. SKINNER, ESQ.

Sir,—Although I do not think the following remarks are exactly appropriate to the intent of your magazine, yet they may not be considered entirely out of place.

Having for several years associated more or less with English agriculturists, I have been frequently informed by them, of the various uses and valuable properties of the common red carrot; a vegetable well known to every family, but almost wholly unknown as applicable to other important purposes in this country.

The first trial I made with them as food for horses, some years back induced me to use them regularly ever since; experience therefore, has confirmed me in the opinion, that of all the tribe of vegetables yet known, there is nothing comparable to the carrot.

In the spring of 1823, I rented about the *fifth* of an acre of ground,—it had been previously manured and ploughed—on which I sowed the orange carrot seed; owing to a dry and cold spell of weather they did not come up so soon as they ought to have done, and the continued drought when they did come up, retarded their growth materially; it was not till midsummer they were refreshed by continued showers, and assumed a luxuriant appearance. In the course of the season they were weeded three times and ploughed once; the beginning of November they were ploughed up and yielded *ninety bushels.*

A friend of mine raised from one third of an acre this season 200 bushels,—his land was of bad quality—a stiff clayey loam, which had been previously in grass and become a hard sod; with his accustomed good management and attention to keeping down all weeds by means of a plough, I wholly attribute his success; had my land been ploughed and managed as well as his, I should doubtless have had one *hundred and forty bushels* owing to its better quality.

The expense attending the cultivation of an acre of carrots would be 15 dollars, an average crop 500 bushels, making the first cost equal to three cents per bushel. Those who have large stocks of cattle might be enabled to keep such stocks without expense in good order throughout the winter, and good farms depend nearly as much upon the effect of good keep, as the result of good breeding.

An erroneous opinion prevails that horses are not fond of carrots, it may doubtless be so in some rare instances. In this case they should be fed sparingly at first, and a fondness inevitably follows. I have frequently endeavoured to discover whether they did not prefer them to oats and corn, however by giving the three at once, they would eat of each alternately without appearing to show any preference.

From repeated experiments I have estimated a bushel of carrots at least equal to a bushel of oats, and am not certain they are not equal to a bushel and a half; their proportion of nutritive matter has been accurately ascertained, and found to exceed that of almost any other vegetable.

In recommending to the public the cultivation and use of this valuable root, I can have no sinister motive, but I will venture to affirm, that those who will give it a trial, will not be disappointed in its effects.

The great variety of disorders to which horses are subject, arise chiefly from high feeding and the want of regular exercise,—how admirably calculated then is the carrot as a wholesome and medicinal food, improving the wind, gently opening the bowels, preserving the feet from fever, (the forerunner of thrash, &c.) and giving to the coat a sleek and polished appearance.

For the information of those who may be unacquainted with the proper manner of cultivating them, I give you the mode pursued in England, in the hope that some of your subscribers may be benefited thereby.

The ground should be deeply ploughed in the fall of the year. In the spring it should be thrown into ridges, about two feet six inches apart—manure is to be spread in the furrows—which furrows are then to be thrown back, leaving the ridges the same distance apart as before. A small furrow is to be made on the top of the ridges, by means of a stick or hoe—the seed sprinkled in the furrows, after which a light roller is to be passed over the ground.

When the plant is about two inches high, the ground should be hoe-ploughed, and the carrots singled out about three or four inches apart. While growing they should be kept clean from weeds by means of a hoe or hoe-plough. In November they may be ploughed up, by first running the plough close to the plant, and then ploughing them out. No other care is necessary to preserve them through the winter, than to secure them from the frost.

I am, sir, your obedient servant,
W. WALLACE COOK.

SPANISH LUCERNE.

Bowling Green, Caroline County, Virginia,
J. S. SKINNER, ESQ. *February 5th*, 1830.

I have received through the politeness of a friend in South America, some alfalfa seed or Spanish lucerne, but he has left me in ignorance of the time, and manner of sowing it. Now I need not tell you, that with us we drill some grass seed, and sow other kinds broad cast. As I have no doubt you are in possession of the requisite information, I beg you will be kind enough to satisfy me on these heads, through the medium of your most excellent and useful paper, and oblige, respectfully,

A SUBSCRIBER.

[Our correspondent will find an excellent article on the cultivation of Lucerne, in Nos. 6 and 7, vol. 10, of the American Farmer.]

HORTICULTURE.

(From the New England Farmer.)

ANNALES D' HORTICULTURE.

MR. FESSENDEN.—Among the books recently imported from France, for the Library of the Massachusetts Horticultural Society, are four volumes of the "Annales d' Horticulture de Paris." This work has justly acquired a high reputation in Europe, from the variety and value of the scientific and practical information which it contains, on the most pleasing branches of rural economy; and believing that translations of many of the articles, will be found interesting and instructive to the cultivators of this country, I shall occasionally offer such, as you may be disposed to publish in the New England Farmer.

The Horticultural Society of Paris was not instituted until 1826, but so successful have been its efforts to excite a spirit of emulation, and encourage a taste for the most refined of the Arts, that more than fifteen hundred members are already borne upon its rolls, and they are rapidly increasing. Patronized by the sovereign, most of the nobles, and illustrious men of France, have eagerly united, with the proprietors of estates, and the practical cultivators of the soil, to collect and diffuse intelligence, as well as the seeds and plants of every clime, for the common benefit of the whole population of that rich and flourishing empire.

The "*Council of Administration*," holds two meetings in each month, when the reports of the numerous committees, and the communications of correspondents are read. From these, selections are made of such as merit to be inserted in the Journal of the Society, and are transmitted to a "Committee of Compilation," whose duty it is to prepare them for the press.

The Annals are published in numbers, which are occasionally embellished with engravings, on the first of every month, and form two octavo volumes annually, of about four hundred pages each. They are printed under the superintendence of an Editor en Chef.

Each number is divided into four principal sections, as follows:—

1. Memoirs, Reports, and Communications.
2. Notices, Extracts, and an Analysis of important works.
3. Medley and News,—comprehending the proceedings of learned societies, a Table of the prices of the products of the garden, a Calendar of the horticultural work to be performed in each month, and Extracts from the Proces Verbals of the meetings of the Council of Administration.
4. The Bibliographical Bulletin, in which is announced all works which are published, on Horticulture, Agriculture, and on the Sciences connected with them.

The plan of this Horticultural Journal, and the able manner in which it has been executed, commands universal approbation. It is not surpassed by any other similar work, and cannot fail of producing glorious results in a country so fortunately situated as France, for the full development of all the treasures of the garden and field.

The translated extracts which I shall furnish, will be numbered, to facilitate a reference to them, and if desirable, I can send one every week.[*] The first, which I enclose, is much longer than most of those which may follow; but the subject is so important, and the manner of treating it so interesting, that it could not be easily curtailed.

With sincere respect,
Your most obedient servant,
H. A. S. DEARBORN.

Brinley Place, Jan. 18, 1830.

EXTRACT NO. 1.

From the "Annales de la Societie d' Horticulture de Paris."

Considerations, on the process, which nurserymen adopt to obtain New Ameliorated Fruits, and that which nature appears to employ to arrive at the same result. By, M. POITEAU.

It is remarked, with astonishment, that when a new ameliorated fruit appears, it is not, generally, in nurseries where great efforts had been made to obtain it, that it first manifests itself; it is also remarkable, that but few, or none, are developed in those countries, where there are only good fruits,—as, for example, in Paris: finally, in casting a retrospective glance over the history of ameliorated fruits, whose origin is known to us, it is remarkable, that all these fruits have originated in the woods, and hedges,—and always in the interior of some province, where superior fruits were rare, or unknown, inferior trees numerous, and cultivation much neglected.

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[*] We should be happy to receive and publish the proposed articles, or any others, from the pen of our accomplished correspondent.—ED. N. E. FAR.

It is not possible but that these remarks have been made a thousand times, during past ages, still it does not appear that an attempt has been made to deduce any argument or theory therefrom, applicable to the research for new ameliorated fruits. In this research, however, we have proceeded, in conformity to a tradition, based upon a great number of facts, observed among men, animals, and even among some vegetables; but our failure ought, at last, to induce us to think, that, either nature has not acted in the same manner, in cases which appear to us to have a greater analogy between them, or that the thread of the analogies has eluded our grasp, and left us to grope in obscurity. Be that as it may,—upon that is founded the process which has been followed in France, in the research after new ameliorated fruits.

At all times, observation and reason have authorized us to think, that a well constituted man and woman would produce better formed children, than if the father, or mother, or both, were imperfectly organized;—the same reasoning has, also, induced us to admit, that children should inherit the physical and moral qualities of their parents; and it is in conformity to this principle, that a general rule has been established, in the union of domestic animals, in order to preserve pure breeds of cattle, or to ameliorate them; finally, after having remarked, that the seeds of semi-double flowers, oftener produce double flowers, than the seeds of those that are single, it has been concluded, from all these inductions, that the seeds of a superior pear ought to produce a better fruit, than those of an inferior kind.

Here, I think, gentlemen, is the origin of the process, generally followed by nurserymen, when they plant with the hope of obtaining new ameliorated fruits; they prefer sowing the seeds of the best fruits, excepting that these, being already ameliorated, will be more likely to produce a good fruit, than those of a degenerated kind.

But, as I have before stated, either nature does not, always, act in the same manner, in cases which appear to us to have the greatest analogy between them, or, that the thread of the analogies has escaped us, since we do not, generally, obtain new ameliorated fruits, by the process commonly followed, although founded upon numerous analogies. Duhamel, during his long scientific career, carefully planted the seeds of all the best fruits, which were eaten at his table, and never obtained a fruit worthy of being cultivated. His cotemporaries followed his example, and were not more fortunate. M. Alfroy, our fellow member, has informed you, that he has annually made large seminaries, with the same care and precaution taken by Duhamel, and still he had not obtained any new ameliorated fruit. His father, and grand-father did the same, and with no better success. You do not see any new ameliorated fruits produced, in the numerous and vast nurseries of Vitry. Still the process which we now follow, reposes upon well attested analogies; it cannot be incorrect in itself; but we, probably, execute it badly,—in an incomplete manner, and above all, we appear to have lost the thread of the analogies, which should conduct us to that result, which we have vainly sought during several centuries, and which nature attains, entirely, alone, and by our side,—as if to show us the path, which we should follow.

The investigation, which I intend to undertake, in order to find this path, obliges me to request, that you will be pleased, gentlemen, to transport yourselves, in imagination, with me, to the United States of America; because, it is there that nature actually operates in a grand laboratory, to produce new ameliorated fruits. Perhaps, after having examined the works of nature in that grand laboratory, we shall return to our own country with more enlightened ideas upon the subject, to which I have the honor of drawing your attention.

You will recollect, gentlemen, that when the Europeans established themselves in that country, nearly three centuries since, they found neither apples, pears, or peaches, and that they immediately introduced some of our ameliorated fruits. But a colony which is established in a country inhabited by savages, is, at first, occupied with such numerous and necessary cares for self-preservation, that a long time must elapse, before the colonists would think of multiplying, by grafts, the ameliorated fruits which they had received from Europe; and it is conceding much, to suppose, that they had then time to plant even a portion of the seeds of those fruits. Fortunately, nature, always active, planted them with her own powerful hand; but this was a resumption of her rights, and causing the new fruits to re-enter her domain; so that in less than a century, all the ancient ameliorated varieties which had been brought from Europe, were transformed, in their first generation, into wild and sour kinds, unfit for the table.

In the mean time, these wild fruits, in their turn, produced seeds, which, having been planted, partly by nature, and partly by the hand of man, formed a second generation, whose fruits were not, probably, scarcely better than those of the first. Finally, a third, fourth, and fifth generation succeeded the first; then the inhabitants began to remark, that among the latter, some fruits were to be found, better than the preceding: This is not a bold and unwarrantable assertion, gentlemen, but a tradition, preserved in that country, and which was transmitted to me by the inhabitants, when I was in Virginia, during the year 1801.

Nature does not make leaps in her concessions, and it is only progressively and slowly, that she grants us what we demand of her, while she receives back, and immediately again causes to re-enter her domain, the ameliorated fruits which we have enjoyed for several centuries, if we confide to her the seeds of them. This new information ought to enlarge and rectify our ideas:—it should enable us to perceive that we have done wrong, in eradicating and throwing into the fire, a tree, whose fruit did not answer our expectations;—it teaches us, that we should plant the seeds of the first fruit to obtain a second;—those of the second to procure a third, a fourth, a fifth, &c., until we have attained the desired degree of amelioration; or that which nature cannot surpass, in her transformations.

It was by eradicating and throwing into the fire the tree, whose first fruit answered not our expectations, that we dropt, in fact, the thread of analogy,—that we were then misled, and it became impossible to obtain the result which we sought. Now, when our ideas are more clear, let us ask M. Huzard, our fellow member, if, among domestic animals, the highest degree of possible amelioration, is ever attained in the first generation. His answer, in the negative, will be the complement of that which we have learned in America, and convince us, that when we seek for new ameliorated fruits, we proceed exactly in such a manner as never to obtain them.

We will now pass on to the question, to ascertain whether it is advantageous, useless, or injurious, to prefer the seeds of table fruits,—that is to say, the best fruits,—when we plant, in the hope of obtaining new ameliorated fruits. This question, which is not in conformity to practice, is still worthy of being discussed before the Horticultural Society of Paris, which can only admit and propagate such principles and processes, as are founded on successful results.

The nursery men, seeing that in domestic animals, the races which have already begun to be ameliorated, arrive sooner at the maximum of amelioration than those which commence from the lowest degree of degradation, have thought that it should be the same with the fruits of the apple, and pear; and they have established as a general rule, that it was advantageous to select the seeds of the best fruits, when they planted, with the hope of obtaining new ameliorated fruits. This rule has been followed, to the letter, from its origin to the present time. Very well! You all know, gentlemen, that they have obtained, absolutely, nothing; neither facts or results can be cited in its favor; it even appears, that nature abrogates it, by the course which she pursues in her ordinary march. In fact, we have seen, that the seeds of ameliorated fruits, planted in America, have produced only wild fruits, which have not shown a sensible amelioration until after several generations. If to this example, we join a fact recorded by several authors,—to wit, that the seed of a Winter Bon-Chretien always produce a detestable fruit, we shall be induced to consider the rule of the nursery men as without foundation; finally, if we support ourselves by the respectable authority of Mr. Knight, President of the London Horticultural Society, who positively asserts, that the seed of the wild pear, fecundated by the stamens of a blossom of an ameliorated one, it will yield a better fruit than the seeds of an ameliorated pear; if, I say, we support ourselves by the respectable authority of Mr. Knight, we shall be fully authorized to think, that the rule of the nursery men is not only ill founded, but that it is adverse to the success of the operation.

After these considerations upon the course which we have always followed to obtain new ameliorated fruits, and upon that which nature appears to pursue, to arrive at the same results, it is proper to glance at the process which the Belgians, our neighbors, employ in like cases. You know already, that they are much more fortunate than we are in their results, that they frequently obtain excellent new ameliorated fruits, several of which have enriched our gardens, and those of England, for a number of years; and as the process, and theory establish the cause of their results, we should now be disposed to receive favorably, the method of the Belgians.

Their compatriot, M. Van Mons, has made known the method which is pursued in Belgium, to obtain new ameliorated fruits; and the information which I now have the honor, gentlemen, of communicating to you, is but an extract from the compilation of M. Van Mons.

The Belgians give no preference to the seeds of table fruits, when they plant to obtain new ameliorated kinds. When their plants appear, they do not, like us, found their hopes upon individuals exempt from thorns, furnished with large leaves, and remarkable for the size and beauty of their wood; on the contrary, they prefer the most thorny subjects, provided that the thorns are long, and that the plants are furnished with many buds, or eyes, very near together. This last circumstance appears to them, and with reason, to be an indication that the tree will speedily produce fruit. As soon as the young individuals which offer these favorable appearances, afford scions, or buds capable of being grafted or inoculated upon other stocks, those operations are performed; the apples on Paradise, and the pears on quince trees, to hasten their fructification. The first fruit is generally very bad, but the Belgians do not regard that; whatever it is, they carefully collect the seeds and plant them; from these, a second generation is produced, which commonly shows a commencement of amelioration. As soon as the young plants of this second generation have scions or buds, proper for the purpose, they are transferred to other stocks, as were the preceding; the third and fourth generations are treated in the same manner, and until there are finally produced ameliorated fruits worthy of being propagated. M. Van Mons asserts, that, the peach, and apricot, treated in this manner, afford excellent fruit in the third generation. The apple does not yield superior fruit before the fourth or fifth generation. The pear is slower in its amelioration; but M. Van Mons informs us, that in the sixth generation, it no longer produces inferior, but affords excellent fruits, intermixed with those of a middling quality.

You will recognise, gentlemen, by this exposition, that the method of the Belgians, is an imitation of the course which nature pursues, in the United States of America, to produce new ameliorated fruits; and whether the Belgians had a knowledge of what had passed in the United States, and that they have taken nature for their guide; or whether by reason alone they have found out this method, it is not less true, that they obtain many new ameliorated fruits,—several of which are now scattered over Europe, while we obtain none, absolutely none, by our process.

I have accomplished the task which had been assigned me; I have placed the result before the Horticultural Society, that it may decide, in its wisdom, whether my labors have been, in some degree, useful to the progress of Horticulture; and whether we should not abandon our unsuccessful method, and adopt that of the Belgians, which appears to me excellent, and in conformity to the course of nature.

GRAPES.

The advantage of engrafting Native Grape vines with those more delicate and choice.

Having read Mr. Coxe's account of his successful experiments in engrafting various kinds of delicate foreign and other grape vines on the common native vines of his fields, in the American Farmer, vol. 10, No. 21, I was encouraged to make the experiment according to his directions; the mode is the same as is generally practised in cleft grafting the apple tree, with the exception of the grafts being inserted even with or below the surface of the ground; and instead of using composition or clay around the stocks and grafts, the common earth is drawn around them to the top of the upper bud of the graft.

My experiments confirm the correctness of the statement given by Mr. C. of some of his grape vines having grown ten feet the first summer after grafting. I engrafted two scions of the Isabella grape on one large stock, of what is commonly called the Chicken grape, one of which grew twelve feet, and the other nine feet last summer; the side shoots pruned off during the season measured thirty feet in length. The vines may be seen at Sinclair and Moore's Nursery, three miles from Baltimore.

I thought this coincidence of results was so encouraging, and that the mode of grafting would be so useful that it should be made known in our country generally. R. Sinclair.

1st Mo. 23, 1830.

THE VINE.

The vine lasts a considerable age—Pliny mentions a vine which had attained the age of 600 years. The slender stems of ordinary vines, when they have attained a considerable age are remarkably tough and compact; and the timber of the very old ones in foreign countries, which is occasionally of size enough for being sawn into planks and made into furniture, is almost indestructible. Strabo mentions an old vine which two men could not embrace. Of the variety of the vine called the Black Hamburgh, there are several remarkable trees in England. Of these, among the most celebrated are the Hampton Court vine, and the vine at Valentines, in Essex. The Hampton Court vine is in a grapehouse on the north side of the palace: it covers a surface of 22 feet by 72, or 1594 square feet. It is a most productive bearer, having seldom fewer than 2000 clusters upon it every season. In the year 1816, there were at least 2240, weighing each on the average a pound; so that the whole crop weighed a ton, and, merely as an article of commerce, was worth upwards of £400. The Valentines vine extends over a greater surface, and has a larger trunk than that at Hampton Court, but it is not on the average of seasons so productive. It has however been known to produce 2000 bunches, of a pound each.

CORK TREE.

J. S. Skinner, Esq.

Dear Sir,—Among the numerous articles brought to our country, I do not recollect that the cork-tree has ever been introduced. Its great value cannot be doubted, and we have I believe, no substitute for its bark. This hardy tree flourishes on the mountains of Spain, where snow lies the greater part of the year. Its fruit resembles the acorn, and could be easily procured from any part of Spain, Portugal, Italy, or France; being common to all the south of Europe. There is a beautiful grove of these trees about six or seven miles from Gibraltar, on a plain, which in summer is a fashionable resort for *pic-nic* parties. I have no doubt that the tree would grow in many parts of our country—and besides its great value it is eminently handsome and ornamental. Yours, respectfully,

Un Ami du Systeme Americain.

[It is to be found, if we mistake not, amongst many other rare and beautiful exotics, at Rose Hill, the delightful residence of General Foreman, on the banks of the Sassafras.]

INTERNAL IMPROVEMENT.

ESSAY ON RAIL-ROADS.

(Continued from p. 373.)

From the Manchester Guardian.

Liverpool and Manchester Railway.—The triumphant course of this great national work, and the unequivocal success which attended the late experiments at Rainhill, have brought its shares into the highest request, and given them a value which none but its most sanguine friends could have ever anticipated.—The shares in other works of a like nature are also found to be of increased value, as the present market prices will sufficiently show.

	Cost.	Present price.
Liverpool and Manchester .	£ 90	£165
Bolton and Leigh . . .	106	141
Kenyon and Leigh	30	62
Wigan	10	16
Stockport	1	3

Extract of a letter from W. Brown, Esq. to his brother, received per the Wm. Byrnes, dated

Liverpool, Nov. 6, 1829.

"Mr. Winans and Geo. A. Brown have just returned from Rainhill, about twelve miles from this city, on the Liverpool and Manchester Rail-road, where they have been amusing themselves riding on Mr. Stevenson's Locomotive Engine, at the rate of twenty-eight miles per hour—drawing about thirty passengers. She is represented to have gone one mile in a minute and sixteen seconds (about forty-eight miles an hour)—but this Mr. Stevenson himself can scarcely credit. She drew forty-two tuns, on a level road, fifteen miles per hour. * * * * * * New rail-roads are projecting over the country—a meeting is to be held on Wednesday to create a company to carry one to Birmingham.

"Canal property is ruined; I believe the Sankey has fallen from 1800*l.* per share to 600*l.* In fact they are even anticipating that it may be necessary to let the canals dry, and to lay rail-roads on them. The [canal] property in this country has cost about thirty millions of pounds sterling—its length about 2600 miles."

Extract of a letter from a respectable gentleman in Liverpool, to his friend in Baltimore, dated 19th November, 1829.

"You will be rather surprised when I communicate to you that the stockholders in the Sankey canal, the most profitable canal in this kingdom, rising from 1000 to £1800 per share, have had a meeting this week, it is most confidently believed, *to take into consideration the expediency of letting it dry and laying a rail-road on it,* and that they are about applying to Parliament for this liberty. This very day Lord Grosvenor, the Earl of Derby, and the Marquis of Stafford, with some of the Liverpool and Manchester directors, are going over the road accompanied with engineers, for the purpose of making examinations. These noblemen are very heavy holders of canal property, and think it may be advisable to make them [canals] into rail roads.

"A rail-road from this to London is contemplated, and I believe a negotiation is at this moment going on between the Manchester Rail-road Company and certain powerful and influential holders of canal stock, in order, as far as possible, to make the canal property available, provided they will support a bill in Parliament for the above object. This is, however, kept as quiet as possible. Thirty millions sterling are invested in canal property in this country, and its fall must therefore ruin many people.

"The late experiments must save you a great deal of money in levelling. Rainhill inclined plane ascends one foot in ninety, (fifty-five feet per mile,) and it was intended to place a stationary engine on it; but it is now quite unnecessary, as the locomotive ascends it with considerable loads. Mr. Gurney offers to make an engine that will ascend an inclined plane of one foot in twelve, (440 feet per mile,) and take three times its own weight up—he does not say at what speed. Be in no hurry in pushing your road, for what is going on here will gain you much information, and save you a great deal of money.

"The Manchester rail-road stock has advanced to £171, and the Bolton and Leigh to £124.

"The daily expense of a locomotive engine now at work on the Manchester road, (a large engine,) is—engine-man, 4s.; fire-man, 2s. 6d.; coals, 3s. 4d.; oil, 1s.—Total, 10s. 10d."

To enable our citizens generally to form a correct estimate on the subject, the most eligible course would be to suspend the commencement of any contemplated canal—to finish the Columbia rail-road with as much expedition as is compatible with the proper execution of the work, and then we shall have ocular demonstration of the operation of a rail-road for general transportation, and be enabled to make a fair comparison between the two rival modes of conveyance. The canals that are commenced ought to be completed as speedily as practicable.

Wholly apart from all considerations of the superior degree of velocity, the circumstance of the communication by canals being suspended, during three, four, and sometimes five months in the year, would greatly preponderate in favour of rail-roads, even at a great additional expense. This suspension takes place at a period peculiarly disadvantageous in two points of view. It is a season in which farmers have but little employment, and could therefore advantageously attend to the transportation of their produce. In New England, where the long continuance of frost affords uninterrupted sleighing, which is almost equal to rail-road communication, nine-tenths, perhaps more of the transportation is carried on during the winter. It is moreover to be observed, that the suspension occurs at a time when merchandise is to be transported to the interior for the spring sales, and when a delay of a few weeks may be, and often is, incalculably injurious to the trade of a whole community. Hamilton.

Philadelphia, January 14th, 1830.

From the London Mechanic's Magazine for October 10, 1829.

Grand Mechanical Competition—Rail-road Race for £500.—The great rail road between Liverpool and Manchester being now nearly completed, the directors of the undertaking some time ago announced that they would give a premium of £500 for the locomotive engine, which should, at a public trial to be made on the first of the present month of Oct., (afterwards postponed to the 6th) draw on the rail-way a given weight with the greatest speed at the least expense. The offer of so handsome a premium, and the brilliant professional prospects which the winning of it presented to mechanical men, naturally excited a very lively spirit of competition among them. In almost every quarter of the country, engine makers and engine inventors set themselves to work to secure the prize; and the result, we are happy to say, has been such as to furnish a lasting example of the wisdom of calling into action, and giving fair play to, *the general talent of a country*, when any great public object has, as in the present instance, to be accomplished.

At all hands, the directors of the Liverpool and Manchester railway, deserve thanks for their conduct on this occasion; from their constituents, for the good sense and liberality which dictated a competition by which the capability of the rail way, to do all that was promised, and much more, has been at once placed beyond all doubt, and the chances of a profitable return for the money invested in it increased at least tenfold; from the owners of the competing engines, for the liberal encouragement by which they were induced to *start for the plate*, and the impartial spirit, (divested of all local and personal influences) in which the competition has been conducted; and from the nation at large, for the powerful impulse which this demonstration of the extraordinary celerity with which carriages may be propelled on rail-ways, must give to the more extensive adoption of this mode of conveyance throughout the kingdom.

The principal conditions on which the prize was offered were these.—1st. That each engine entered for the competion should weigh not more than six tons, and be capable of drawing after it, day by day, on a level plain, a train of carriages of a gross weight, equal to three times the weight of the engine itself, at a rate of not less than ten miles per hour, with a pressure of steam in the boiler not exceeding 50lb. on the square inch. 2. That the engine and boiler should be supported on springs, and rest on six wheels, and the height from the ground to the top of the chimney should not exceed fifteen feet. 3. That the engine should "effectually consume its own smoke;" and 4. That there should be two safety-valves, one of which should be completely out of the reach of the engine-man's interference.

The gentlemen appointed by the directors to act as judges on the occasion, were J. U. Rastrick, Esq., of Stourbridge, civil engineer, Nicholas Wood, Esq. of Killingsworth, civil engineer, (author of the excellent work on rail-ways) and John Kennedy, Esq. of Manchester.

The portion of the rail-way chosen for the "running ground" was on the Manchester side of Ram hill Bridge, (about nine miles from Liverpool) where the rail-way runs for two or three miles on a dead level.

Early on Tuesday, the day of competition, great crowds of people were assembled from all parts, to witness the sight. There were many individuals who had come hundreds of miles for no other purpose; and, as may readily be supposed, these were not idle spectacle hunters, but chiefly engineers and men of science capable of appreciating, in its full extent, the great importance of the exhibition.

The number of competitors was at first reported to be ten, and we have reason to know there was at least as many engines as this in preparation. In this new sort of race, however, as in others, there were some withdrawn, and some prevented by accidents from making their appearance; and the number was reduced on the morning of trial, to five, which were thus described in the official list of *the running coaches:*—

No. 1. Messrs. Braithwaite and Erickson, of London; "The Novelty;" copper and blue; weight, 2 tons 15 cwt.

2. Mr. Ackworth, of Darlington; "The Sans Pareil;" green, yellow, and black; weight, 4 tons, 8 cwt. 2 qrs.

3. Mr. Robert Stephenson, Newcastle-upon-Tyne; "The Rocket;" yellow and black; white chimney; weight, 4 tons, 3 cwt.

4. Mr. Brandreth, of Liverpool; "The Cycloped;" weight, 3 tons; worked by a horse.

5. Mr. Borstall, Edinburgh; "The Perseverance;" red wheels; weight, 2 tons, 17 cwt.

The engine which made the first trial, was the "Rocket" of Mr. Robert Stephenson (the son, we believe, of Mr. George Stephenson, the engineer of the rail-way.) It is a large and strongly built engine, and went with a velocity, which, as long as the spectators had nothing to contrast it with, they thought surprising enough. It drew a weight of twelve tons, nine cwt. at the rate of ten miles four chains in an hour, (just exceeding the stipulated minimum,) and when the weight was detached from it, went at a speed of about eighteen miles an hour. The faults most perceptible in this engine, were a great inequality in its velocity, and a very partial fulfilment of the condition that it should "effectually consume its own smoke."

The next engine that exhibited its powers was "The Novelty" of Messrs. Braithwaite and Erickson. The great lightness of this engine, (it is about one half lighter than Mr. Stephenson's) its compactness, and its beautiful workmanship, excited universal admiration; a sentiment speedily changed into perfect wonder, by its truly marvellous performances. It was resolved to try first its speed merely; that is, at what rate it would go, carrying only its complement of coke and water, with Messrs. Braithwaite and Erickson to manage it. Almost at once, it darted off at the amazing velocity of twenty-eight miles an hour, and it actually did one mile in the incredibly short space of one minute and 53 seconds! Neither did we observe any appreciable falling off in the rate of speed; it was uniform, steady and continuous. Had the rail-way been completed, the engine would, at this rate, have gone nearly the whole way from Liverpool to Manchester within the hour; and Mr. Braithwaite has, indeed, publicly offered to stake a thousand pounds, that as soon as the road is opened, he will perform the entire distance in that time.

It was now proposed to make a trial of the "Novelty," with three times its weight attached to it; but through some inattention as to the supply of water and coke, a great delay took place in preparing it for its second trip; and by the time all was ready, the day was drawing so near to a close, that the directors thought it proper to defer the prosecution of the competition till the following day.

Description of the Competing Engines.

1. The Novelty.

The external view of "The Novelty," will at once satisfy our readers, that it has not been unmeritedly extolled by all who have seen it, for its singular lightness, elegance and compactness. All locomotive engines have been hitherto so constructed, as to require a separate tender to carry the water and fuel necessary for these operations (we cannot as yet except Mr. Gurney's;) but "The Novelty" includes within itself every necessary accommodation for these purposes, and is, nevertheless, much lighter than any engine on the old plan. "The Rocket" of Mr. Stephenson, which is one requiring a separate tender, weighs 4 tons 3 cwt., while "The Novelty" weighs only 2 tons 15 cwt.; making a difference in favour of the latter of 1 ton 8 cwt.

There have been people so absurd as to say there can be nothing gained by so great a reduction in the weight of an engine as this; that it is "something like substituting a Scotch galloway for a good team-horse; because the lighter the engines are, the weaker." We do not dispute that there is a limit beyond which there is nothing to be gained by lessening the weight of an engine; but we think the performances of "The Novelty" furnish abundant proof that this engine at least has not approximated to that limit. The plan, besides, which the judges adopted, of requiring that each engine should draw *three times its own weight*, was calculated to prevent most effectually any delusion on this head.

The advantage gained by such a reduction in weight as "The Novelty" exhibits, is one of no small moment. On the Stockton and Darlington Railway, the enormous weight of the engines employed (12 tons, we believe) has been a subject of great complaint. "The speed of the engines," says a writer on rail-roads, "has been increased on the Darlington road, by substituting wheels of 4 feet diameter instead of 3; but these working upon the plain bars cannot be case-hardened, for fear they should turn round when they have a hard pull—consequently, they are cast of soft iron, which, from the immense weight of the engines, *wears into grooves,* the width of the rails, and with the heavy drag, bites upon the rails, and twists them sideways, which keeps men incessantly upon the line setting them straight: the proof is obvious, because where the *engines* do not work, but the *wagons only,* the rails keep their position, and want no repairs.

The Directors of the Liverpool and Manchester Railway having the experience of these results before them, very wisely made superior lightness, one of the foremost qualifications, which should enable an engine to be ranked as "the most improved" of those competing for the prize. They announced that "the weight of the machine, with its complement of water in the boiler, must at most *not exceed six tons,* and that a machine of *less* weight will be preferred, if it drew after it a *proportionate* weight."

The means by which the inventors of "The Novelty" have been able to combine so much lightness with great power, will be unfolded as we proceed with our description.

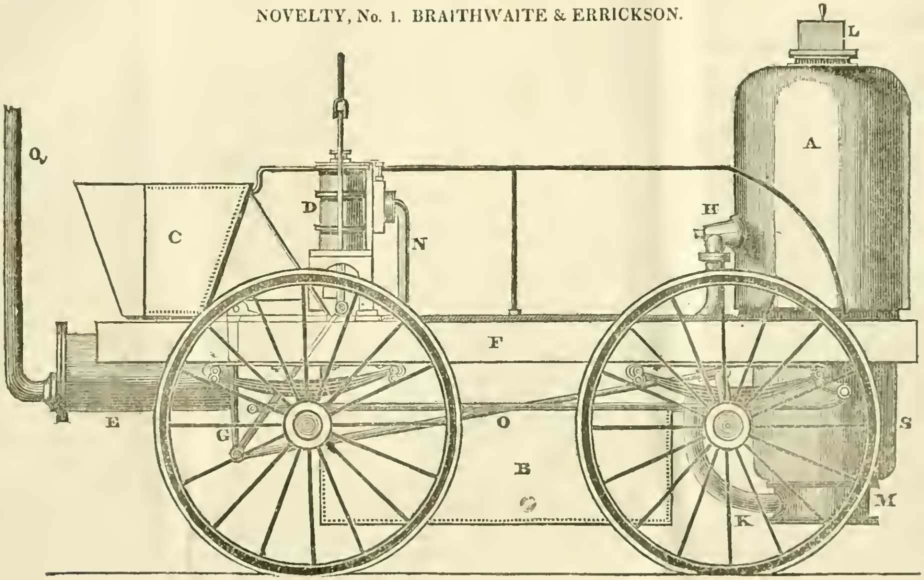
The annexed engraving, No. 1, exhibits the external elevation of the engine. F is the carriage frame; E the end of a circular boiler which passes under the carriage frame towards the steam-chamber A; L a hopper to receive the fuel, (which is carried in two small baskets placed on the frame) whence it falls through a pipe in the centre of the steam-chamber A, into the furnace S; M the ash pit; D and N two working cylinders and their slides (one of each only is seen in the engraving;) B the water-tank; C an air-compressing apparatus, which acts on the furnace through the medium of a pipe that passes under the framework, and ends at K; N a pipe for the escape of the heated air; O G the connecting rods which impart the action of the pistons to the wheels.

The boiler is made to contain about 45 gallons of water; the diameter of each of the cylinders is 6 inches, and the length of the stroke 12.

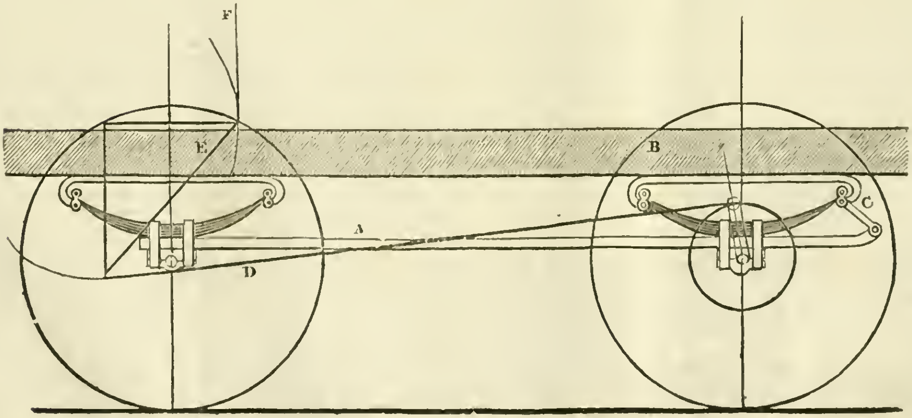
The engraving, No. 2, is intended to explain more particularly a very beautiful arrangement of the springs, to which this engine is mainly indebted for its superior steadiness when in action. The axle-trees are fixed to the iron rod A, and a sling, C, is introduced to obviate that side action which would otherwise take place between the rod and the carriage frame B. Again, to prevent the action of the springs from interfering with the action of the engine, the connecting rod, D, is placed as nearly in a horizontal position as possible; the connecting rods are moved by bell cranks, E, which are connected by slings, F, with the piston rod.

The wheels are of the excellent description patented by Messrs. Jones and Co., and the choice of them by Messrs. Braithwaite and Errickson is as strong a tribute as could well have been paid to their merits. From the peculiar manner of their construction they act with the least possible interference from the weight of the engine, and being perfectly cylindrical, bear equally with their whole breadth on the rails. The lightness for which these wheels are famed, is not in this instance so remarkable, "The Novelty" being itself in its main parts so light, as to throw other things in comparison with it into the shade. Of the total weight of 2 tons 15 cwt., we believe 18 cwt. falls to the share of the wheels.

NOVELTY, No. 1. BRAITHWAITE & ERRICKSON.



NOVELTY, NO. 2.



LADIES' DEPARTMENT.

(From the Journal of Health.)

A NERVOUS LADY.

The necessary connexion between a well regulated mind, and perfect bodily health, is well enforced in the following passage from "Law's Serious Call, &c." in which he shows how the want of the former is attended by the loss of the latter. Of Mr. Law, Gibbon the historian, not at all prone to give any credit to Christian professors, is compelled to admit that he left behind him the reputation of a worthy and eminently pious man, who believed all that he professed, and practised all that he enjoined. We shall perhaps be found more than once borrowing from the above-mentioned work, in regard to which, Gibbon says, that "his precepts are rigid, but they are formed and derived from the Gospel; his satire is sharp, but his wisdom is from the knowledge of human life; and many of his portraits are not unworthy of the pen of La Bruyere." We give without farther preface the promised extract.

"Cælia is always telling you how provoked she is, what intolerably shocking things happen to her; what monstrous usage she suffers, and what vexations she meets with every where. She tells you that her patience is quite worn out, and there is no bearing the behaviour of people. Every assembly that she is at, sends her home provoked; something or other has been said or done, that no reasonable, well-bred person ought to hear. Poor people that want her charity, are sent away with hasty answers, not because she has not a heart to part with any money, but because she is too full of some trouble of her own, to attend to the complaints of others. Cælia has no business upon her hands, but to receive the income of a plentiful fortune; but yet by the doleful tune of her mind, you would be apt to think that she had neither food nor lodging. If you see her look more pale than ordinary, if her lips tremble when she speaks to you, it is because she is just come from a visit, where Lupus took no notice at all of her, but talked all the time to Lucinda, who has not half her fortune. When cross accidents have so disordered her spirits, that she is forced to send for the doctor, to make her able to eat, she tells him, in great anger at Providence, that she never was well since she was born, and that she envies every beggar that she sees in health.

"This is the disquiet life of Cælia, who has nothing to torment her, but her own spirit.

"If you would inspire her with a Christian humility, you need do no more to make her as happy as any person in the world. This virtue would make her thankful to God for half so much health as she has had, and help her to enjoy more for the time to come. This virtue would keep off tremblings of the spirits, and loss of appetite, and her blood would need nothing else to sweeten it.

MISCELLANEOUS.

SINGULAR ROBBERY.

The coins deposited by the Right Reverend the Bishop of Chester within the foundation stone of the church of Ashton-under-Line, were soon afterwards very ingeniously extracted from the cavity of the stone, and a scrap of paper, containing the following lines, was found in the place of them:

This stone the curious fact revealed,
That various coins were here concealed;
And told the world in language fair;
A bishop's hand had placed them there,
To make such information known;
It must have been a clever stone;
So clever—it perhaps can say,
Who 'twas that stole the coins away.

A New Method of Charring Wood.

The last number of Silliman's Journal contains a description of a new method of charring wood, or, as it is termed, burning charcoal, discovered by a Mr. Doolittle of Vermont. The attention of Mr. Doolittle was attracted to the subject by observing the wasteful, slovenly, and laborious manner in which coal has hitherto been made in this country. An examination of a charring kiln at the works of the West Point Foundry Association, suggested to him, that a kiln built above ground, with vents that could be come at with readiness, and arching the top over with an iron cap in the form of a dome, leaving one or more openings in the side for the admission of wood and the extraction of coals, would improve the quality of the coals, accomplish an immense saving of labour in the use of kilns, and produce great economy in wood. An experiment realized his most sanguine expectations. He obtained fifty-five to sixty bushels of coals to the cord, and of a quality far superior to coals made in the ordinary way. Thirty-five bushels, or thereabouts, to the cord, is generally considered by colliers as a fair yield.—*Boston Palladium.*

THE FARMER.

Baltimore, Friday, February 12, 1830.

The Lafayette Institution, established some months past by the highly gifted and lamented Leopold Le Page, will be continued, according to his design. The chief objects contemplated in its establishment were to afford to parents the best possible guarantee for *thorough* instruction of their children, in *English, Latin, Greek, Mathematics, French, Spanish, and drawing.* These objects it is confidently believed may be anticipated at this school, so far as they depend, as they must always do, on the agency of competent and conscientious instructors; sensible of the true dignity and usefulness of their occupation; and of the high moral responsibility of those who undertake to guide, enlighten, fortify, and polish the mind and manners of the rising generation.

Instruction will be given in English, Latin, Greek and Mathematics, by Mr. Rogers, the Principal of the school, who will be constantly in attendance, and who is well known for his thorough and successful mode of teaching in these departments.

The Spanish will be taught by Senor Preto, as heretofore in the same school, and the French and Drawing by Mr. Breda, who though not yet so well known, was educated at the Royal College of Metz, the most distinguished in France, and brings the most satisfactory evidence of character and capability.

With such guarantees for the best results, the undersigned take the responsibility of recommending the Lafayette Institution to the patronage of those who entertain a due estimate of the importance of being well grounded in classical learning, and the great value of a practical knowledge of the French and Spanish tongues, so far as to *speak* them for professional and business purposes. They have no interest in the matter beyond that which every one must feel in the cause of education; nor would they presume thus to submit their names to the public in connection with a subject of so much interest to all parents, were it not to comply with a fair and reasonable appeal to their judgment and candour.

To the assurance here given of great confidence in the probity, diligence and capacity of the gentlemen associated as instructors in the Lafayette Institution, the undersigned have added a stronger pledge, in having selected it for their own children. The conduct of the school will be carefully observed, and the progress of the pupils rigorously examined, not only at stated periods, but occasionally, without notice to instructors or pupils as has been suggested by the instructors themselves; and should any thing transpire to impair the confidence here expressed, it will be as explicitly revoked as it is here avouched by the undersigned.

J. S. Skinner, G. Winchester,
N. Williams, H. N. Gilles,
R. W. Hall, M.D. Louis Barney.

☞ Silkworms—Cloruret of Lime.—We observe a paragraph going the rounds of the papers which states, that "according to a memoir published by the Royal Agricultural Society of France, the use of the chloruret of lime, for the purpose of purifying the air in places where silkworms are kept in large numbers, is found to be very beneficial. The mortality so common in this insect from the miasma of the atmosphere is thus prevented."

We are glad to see this information extensively disseminated under any circumstances; as much good will result from it to the cause of the silk culture in the United States. But why do our publishers shut their eyes to every thing that originates at home, and so greedily seize upon every thing of foreign origin? Why was not the same fact as extensively published last summer, when it was laid before the public in one of our most extensively circulating journals? Was it because an American had made the discovery, and it wanted the approbatory seal of foreign scientific societies?

Chloruret of lime (or as it is more commonly called, *chloride* of lime,) was used last spring by Gideon B. Smith, of Baltimore, in his silk establishment, with the most decided advantage—saving his whole stock of worms from the disease by which they were attacked, and which swept several other establishments entirely; and an account of the discovery and the result of the experiment was published in the American Farmer. But it originated in the United States, and had not received the sanction of foreign science, and hence it was not copied, that we can learn, into a single American paper. The same individual has made other improvements in the silk culture, which in France would have obtained the "society's medal;" but they must come from Europe before they will be received even as a *gratuity* here.

☞ The great and growing importance of the gold region of North Carolina, may be judged of by the following extract that we have been kindly permitted to make from a letter addressed to Major Carson, a representative in Congress from that state—now in this city.

Morgantown, N. C. Jan. 28, 1830.

Dear Sir,—I have recently observed in looking over the proceedings of Congress, that a resolution has been introduced by you, to establish a branch of the U. S. Mint in the gold region of North Carolina: and although I have not the honour of being personally acquainted with you, yet the interest I feel on the subject has induced me to address this letter to you.

In the county of Cabarrus in which I reside, considerable interest is manifested on the subject of your resolution, and a strong memorial could be sent up to Congress, if it would be necessary, in fact no proposition could have more unanimity in its favour; and when the *number* of persons engaged in gold mining is considered, as well as the *quantity* of gold produced, there certainly can be no doubt that we are entitled to the care of the government. In the single county of Cabarrus there will shortly be in operation engines or machinery at six different places on extensive plans. One, (Mr. Gelston's,) has lately started, and though his ore is considered poorer than most in the county, has produced, it is said, 125 dwts. per day, which would be annually

39,000 dwts. or $35,100; taking this as the basis of an estimate for the county, the amount produced by machinery, (to say nothing of what is found by hand,) would be $210,600 annually, to which twenty thousand dollars may be added for what is found by hand; this may serve to give some idea of the extent of the gold operations. Mr. Bissel, an experienced miner of Mecklenburg, I am informed, extends his estimate for next year, to one million dollars in this state.

The inconvenience of transporting gold to the mint at Philadelphia is considerable, and attended with some risk. There is great difference in the fineness of gold from different mines, besides which it is difficult to guard against fraud, in mixing it with baser metals and otherwise. If the government would only establish an assayer's office, and receive gold, giving certificates as is done at the mint in Philadelphia, it would be of very considerable benefit."

Contents of the American Turf Register and Sporting Magazine, No. 6, for *February*, 1830.

Portrait of American Eclipse, *by Durand.*

Memoir of American Eclipse—Pedestrianism extraordinary in France—Recollections of Eclipse and Cœur de Lion—Bagdad, notice of—Sally Hope and other progeny of Sir Archy—Oscar, memoir of—Transport, her performances—Instances of remarkable speed—Sir Archy, his dam, and their progeny—Correction of errors—Taming Wild Horses—On breaking Horses—Diarrhœa in Horses, treatment of—On the use of the rifle—On gunning, &c.—Philo, a celebrated Pointer, notice of—Deer shooting in Georgia,—Song, "*Let gay ones and great*"—Sports of Missouri—Recipes, for distemper, for killing vermin, for coughs and colds in dogs—Bear, natural history of—Woodcock, natural history of—Robin Red-breast, its mocking talent—Deer hunting in New Jersey—Antiquity of Cock Fighting, anecdotes of—Game Cocks, on breeding—Rindisbacher, the distinguished young artist—Buonaparte, great equestrian performance by—Sporting Intelligence; Fox hunting in Fairfax, Virginia—Grand Circular fox hunt in Washington County—Races at Boydton, Va. Montgomery, Alabama—New Hope and Columbia—List of Stallions for 1830—Turf Register, Pedigrees.

Latest Foreign News.

From Liverpool.—The packet ship Florida, Capt. Tinkham, arrived at New York, Friday evening from Liverpool. Capt. T. sailed on the 1st January, consequently the intelligence from London is not so late as was received by the Hannibal. We give below an extract from a commercial letter.

Liverpool, Dec. 31.—Since the 16th inst. the value of American cotton, except the finest sorts, has risen quite 3-8d per lb. and in the best qualities the advance is nearly ½ per lb.; new Boweds, though in small quantity commanding 7d per lb.

Naval stores exhibit small stocks, and in expectation of this circumstance an advance has been paid in both Turpentine and Tar. Of the former about 880 barrels good, not fine, have been sold at 11s 6d, per cwt, with 1100 bls. inferior at 9s 9d, up to 11s 3d, for middling quality, during the week. In Tar, too, we note a sale of 410 bls. good quality at 12s to 12s 3d per bbl. this being 9d to 1s per bbl. higher. The stock of Baltic Tar is moderate.

Carolina Rice continues much depressed, and very little business is transacting in the article, the demand for some time past having been almost entirely confined to the export orders, and the stock is quite equal to the expected vent for it.

The market has opened for Flaxseed by one sale of 100 hhds. at 60s which is lower than the opening price of the previous year, it appears, however, rather a criterion of the opinion of the importers, than any proof of what course the spring demand may take. It is yet too soon to form an opinion of the wants of this country, and most probably little business will be transacted in this article for some weeks to come.

Some variations have taken place in ashes during the week. Pot has been of heavy sale, and mostly at 39s per cwt. as the stock of that description is by no means so small as to induce speculative operations at the present comparatively high rates, and two or three more arrivals are expected from Canada. Of Pearl, however, there is a very light stock, and in anticipation of this, 24s was paid early this week for 120 lbs. and that price is firmly contended for.

Prices Current in Boston, February 5.

Apples, best, bbl. 1.75 a 2.25. *Beans*, white, bushel .75 a 1.00. *Beef*, mess, bbl. 9.25 a 9.50; cargo No. 1, 7.75 a 8.00; No. 2, 6.75 a 7.00. *Butter*, inspected, No. 1, new, lb. .12 a .14. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.50 a 5.75; Genesee, 5.75 a 6.00; Rye, best, 3.62 a 3.87. *Grain*, Corn, bu. .62 a 63; Rye, .75 a .78; Barley .62; Oats .40 a .42. *Hogs'-Lard*, 1st sort, new, lb. .8 a .8½. *Pork*, clear, bbl. 15 a 16; Navy, mess, 12.50 a ——; Cargo, No. 1. ——a 12.50. *Seeds*, Herd's Grass, bushel, 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 33 a .50; Red do. Northern, .7 a .8; French Sugar Beet 1.50; Mangel Wurzel ——. *Wool*, Merino, full blood, washed, .40 a 45; do. do unwashed, .25 a .30; do. three-fourths, washed, .32 a .35, do. half blood, .30 a .33; do. quarter, washed, .28 a .30; Native, washed .28 a .30; Pulled, Lambs', 1st sort, .40 a —; do. 2d sort, .28 a .31; do. Spinning, 1st sort, 33 a .35.

Prices Current in New York, February 6.

Bees-wax, yellow .22 a 23. *Cotton*, New Orleans .10 a .12½; Upland, .8½ a .10½; Alabama, 9 a 11½. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask 11.25 a 11.50; clean 12. *Flour*, N.York, bbl. 4.75 a —— Canal 5.25 a 5.62½; Balt. Howard st. 4.87½ a 5.00; Richmond city mills, — a ——; country, 4.75 a 4 87½; Alexand'a, 4.70 a 5; Fredericksburg 4.62½ a ——; Petersburg, 4.70 a 4.75 Rye Flour, 3.50 a 3.62½; Indian Meal, per bbl. 2.37½ a 2.50; per hhd —— a 13 00. *Grain*, Wheat, Genesee, 1.03 a 1.06; Vir. 80 a 90; Rye, North, 65 a 70; Corn, Yel. Nor. .50 a 52; Barley, 65 a .68; Oats, South and North, .— a .—; Peas. white, dry, 7 bu.——; Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8.25 a 8.50; prime 5.75 a 6.25; cargo ——a 4.50; Butter, N York, .12 a .16; shipping, .6 a 10; Lard, .5 a .6; Pork, mess 11.00 a 12; prime 9.00 a 9.50

Prices Current in Philadelphia, February 8.

Bees-wax, yellow —. a .22; *Beans*, bushel $1.00 a 1.25, *Beef*, mess 10 a 10.50, prime 8 a 9.00, cargo 7; *Butter*, No 1, 8 a -, No. 2, 6. a--; *Cotton*, New Orleans .10½ a .12½; Upland 10. a .11, Tennessee 9½ a .10½, Alabama 9½ a 10½; *Feathers*, South. .33 a .34, West. .30 a .32; *Flax* .7½ a .8. *Flour*, sup. 4.50, fine, 4.12½ a —; Rye 3.25 a 3.75; Corn meal, hds. 11.00 a ——, bls. —— a 2.06¼; *Flaxseed*. cask 10 25; bu. 1.30 a ——; *Grain*,—Wheat 90 a —— Rye .50 a 52, Corn l. c. white, .36 a .38, l. c. yellow, .36 a .40, u. c. round, .40 a .44; Oats .25 a .30, Barley, Pa. .60 a .62; do. East. .— a .—; black-eyed Peas .40 a .50. *Hams*, Jersey .8 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .5 a .6½; *Oil*, linseed, 68 a 70; *Pork*; mess, 11.25 a ——, prime 10.50 a 11; cargo 9.00 a 9.50, *Rice*, 2 50 a 3.25; *Tobacco*, Kentucky .5 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .18 a .22, half blood .26 a .—; three quarters blood .28 a .32, full blood 28 a .32; unwashed, generally 6 cents less, according to quality.

DURHAM SHORT HORNS FOR SALE.

The subscriber offers for sale low, if applied for soon, two very fine full blooded Improved Durham Short Horn Heifers, nineteen and twenty months old. They will be delivered in Philadelphia.

Further particulars, with a description of the animals, may be had by addressing the subscriber, to the care of Messrs. A. & G. Ralston, Philadelphia.

JAMES COX.

Philadelphia, February 6, 1830.

ALMANAC.

1830. February	Sun. Rises.		Sun. Sets.		Length of days.		Moon. rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 13	6	45	5	15	10	30	10	44
Sunday,........ 14	6	44	5	16	10	32	11	40
Monday,....... 15	6	43	5	17	10	34	morn.	
Tuesday,...... 16	6	42	5	18	10	36	0	36
Wednesday,.. 17	6	40	5	20	10	40	1	33
Thursday,..... 18	6	39	5	21	10	42	2	35
Friday,......... 19	6	38	5	22	10	44	3	24

Moon—Last Quarter, 15th, 5h. 45m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—The barbour being still closed by ice, there is little business doing—few sales of flour, and our quotations are generally nominal. The wagon price of Howard street flour is $4 a 4.12½. There is little wood at the wharves, and the market is well supplied with beef on the hoof.

Tobacco.--Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12 00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week compriso 2 hogsheads Maryland, 14 hhds Virginia and 9 hhds Ohio.—Total 25 hhds.

Flour—best white wheat family, $5.75 *a* 6.25—super. Howard st. 4.25 *a* 4.37½—city mills, 4.00;—Susquehanna, ——. Corn Meal, bbl. —— *a* 2.25—Grain, best red wheat, .— *a* .80; best white do. .85 *a* .90; ordinary to good, .— *a* .70—Corn, old white, .38 *a* 39; yel. .40 *a* —; new .40 *a* —Rye, .46 *a* 48: Oats, .31 *a* 33; Beans, 90 *a* 1.00—Peas, .65 Clover seed, 5.00 *a* 5 25—Timothy, 2 *a* 2.50—Orchard Grass, 1.75 *a* 2—Herd's, —— *a* ;—Lucerne .37½ *a* — lb.—Barley, ——Flaxseed, 1.20 ———Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .21 *a* .21½; in bbls. .22½ *a* 23—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.—Hemp, Russia, ton, $215 *a* 220; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6.00 *a* ——— No. 2, 5.57 *a* —No. 3, 3.75——Bacon, hams, Balt. cured, .9 *a* .9½—Feathers, .30 *a* 31—Plaster Paris, cargo price per ton, 5.00 *a* 5.25; ground, 1.25 bbl.—Prime Beef on the hoof, .4.00 *a* 4.50—Pork on the hoof, —— *a* 5 00—Pine Wood, by the vessel load, 2.75—Oak Wood, 3.75—Hickory, 5.50

CONTENTS OF THIS NUMBER.

On the Management of Lands permanently under Grass; Perennial Grass Lands fit for Mowing; River Meadows; Meadows most suitable for Irrigation; Upland Meadows; Culture of Upland Meadows. To Remove Ant-hills; On Rolling Grass lands, &c. from Loudon's Encyclopædia of Agriculture—On the Cultivation of the Red Carrot, and its value as food for the horse—Spanish Lucerne—Extract from the Annales d'Horticulture de Paris; On the process which Nurserymen adopt to obtain ameliorated Fruits, and that which Nature appears to employ, by M. Poiteau—Advantages of Engrafting Native Grape Vines with those more delicate and choice—The Cork Tree—Essay on Rail-roads, by Hamilton, continued; Grand Rail-road Race on the Liverpool and Manchester Rail-road; Description of the Novelty Locomotive Engine, with engravings—A Nervous Lady—Singular Robbery—New Method of Charring Wood—Editorial, Gold Mines of South Carolina; Silkworms and Chloride of Lime; Lafayette Institution in Baltimore—Latest Foreign News—Prices in the Boston, New York, Philadelphia and Baltimore Markets—Almanack.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER. Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

(From the Western Tiller.)

THE SUGAR CULTURE.

Agricultural Society of Baton Rouge.

December 8, 1829.

Since the report of the 26th September, made with reference to the Circular of Mr. Gurley, by our committee, three hard frosts producing ice, and happening before the usual season of cold in this country, viz. on Monday 26th October, and Tuesday the 10th and Wednesday the 11th of November, and followed by a series of warm weather, raising the mercury to 70° of Farenheit, have done immense damage to the sugar cane; the injury commencing at the top, and descending gradually to the other parts, so as to require the cane to be cut every day lower and lower, and at present occasioning a pure loss of the half of every stalk. The Agricultural Society of Baton Rouge think it their duty to add to their report of the 26th September, these new and important facts, which corroborate the opinion they had before entertained, that the abolition or reduction of three cents a pound on foreign brown sugars imported into the United States, would be a frightful calamity to Louisiana; and the Society has resolved to render the expression of their opinion public, by causing it to be inserted in the Baton Rouge Gazette, with the signature of their President and Secretary, in order that facts so positive and important may be universally known.

Baton Rouge, Sept. 26, 1829.

At a meeting of the Agricultural Society of Baton Rouge, held the 26th September, 1829, the following report was submitted by Messrs. F. Duplantier, Bessy, and Debellievre.

Gentlemen,—In compliance with your instructions at your meeting of the 5th of the present month, to prepare a statement in answer to the questions proposed by the Hon. H. H. Gurley, relative to sugar establishments in Louisiana, we submit the following:—

Query 1st. What will the capital of a well regulated sugar estate average to each hand employed in its cultivation?

Answer. $297 50, 100 gross product, (See Note A.)

Query 2nd. What is the annual expense of a sugar estate per hand, including overseer's wages, horses, mules, work oxen, fuel, physician's bills, and all other charges?

Answer. $105 per hand. (See Note B.)

Query 3d. What interest will a well managed sugar plantation give per annum on its capital, taking one year with another for five years, after deducting the expenses and charges on the same?

Answer. 10 3-7 per cent. per annum. (See Note C.)

Query 4th. How many acres of land is required for each hand employed in cultivating the cane, and what proportion of wood land?

Answer. Two crops of cane are generally made in succession on the same land, namely, one of plant cane, and one of ratoon, after which it lies fallow, or is planted in Indian corn or peas. A sufficient quantity of cane to plant two hundred acres is preserved yearly.

Query 6th. How many acres of cane will one man tend and harvest?

Answer. One man will tend 5 acres as before stated in answer 4th, besides cutting his proportion of wood for fuel, and ploughing 2½ acres of fallow ground.

Query 7th. What quantity of sugar is an average product of an acre of cane, and how many gallons of molasses?

Answer. 1000 lbs. of sugar, and 25 gallons of molasses.

Query 8th. What is the general price of sugar and molasses when sold by the crop?

Answer. Sugar at 5½ cents per lb. and molasses at 18 cents the gallon.

Query 9th. What per cent. is considered equivalent to the risk of capital in slave property?

Answer. 2½ per cent.

Query 10th. What effect would the repeal of the duty of 3 per cent. on foreign sugar have upon the production of the article in Louisiana.

Answer. The rapid and inevitable ruin of those engaged in the cultivation of cane would be the consequence. Referring to answer 3. Note C. a sugar plantation of 1200 acres, cultivated by 80 hands, estimated together with the purchase of land, negroes, cattle, horses, implements of husbandry, brick buildings, mill, boilers, &c. the establishment of a smaller plantation being portionably more expensive, we estimate at $147,200

But it must be remarked that of the 1200 acres of land, 400 being in wood land and 400 in fallow, there remain only 400 acres actually cultivated in cane, yielding 1,000 lbs. of sugar per acre, as already stated, making in the whole 400,000 lbs. which at 5½ cents would give	22,000
The molasses as stated at 25 gallons the acre would amount to 10,000 galls. which at 18 cents would give	1,800
Gross product, -	$23,800
Deduct for food, clothing, medical attendance and medicines for negroes, food for cattle and horses; overseer and sugar maker's wages, taxes, deaths, wear and tear. [See Note B.] - - -	8,330
Nett product -	$15,470

Or 10 3 7 per cent. interest on a capital of $147,200 as calculated for a sugar plantation of 1200 acres and 80 hands. Now, if Congress should repeal the duty of 3 per cent. per lb. on the importation of foreign sugars, it is evident that the price of that of Louisiana, now 5½ cents per lb. would fall to 3 cents and perhaps lower, and to 10 cents for molasses, hence the 400,000 lbs. at 3 cents would only amount to - - $12,000

And the 10,000 gallons of molasses at 10 cents, to - - -	1,000
Gross product, -	$13,000
From which deducting the expenses, which would still be the same, namely, - - - -	8,330
Would have -	$4,670

As the small Income from a capital of $147,000, which would now produce an interest of 3 per cent. per annum, instead of 10 3-7 per cent. as before stated. In such a country as Louisiana where the rate of discount of the banks with endorsements or mortgage including charges, amounts to 9 per cent. and out of bank is still higher; and where the greater part of the capital employed in establishing the new sugar plantations, has been borrowed, what but certain ruin would be the fate of the unfortunate proprietors, condemned to pay 10 or 12 per cent. interest, and after all his labor and time make only 3 per cent. Such however, is the destiny which awaits the sugar planter of Louisiana if the duty of 3 per cent. per pound were repealed or any part of it, as the least diminution would be a premium to the foreigner, who notwithstanding the duty imports two-fifths of the sugar consumed.

Query 11th. Please state the amount of capital employed in the manufacture of sugar at this time and its annual increase in the state for the last five years.

Answer. About forty-five millions of dollars, of which thirty-one millions for the old sugar establishments, and fourteen millions for the 214 newly erected works, which will be in operation this present year 1829. [See Note D.] It is supposed the capital employed in sugar works did not exceed twenty millions five years ago, but has gradually increased to forty-five millions of dollars.

Query 12th. Will not the sugar of Louisiana answer for refining as well as the West India sugar? If there be a difference in this respect, state in what particular.

Answer. Louisiana sugar by refining yields only from 30 to 35 per cent. whilst the West India sugar yields from 45 to 50 per cent.

NOTES IN EXPLANATION OF THE ANSWERS TO MR. H. H. GURLEY'S QUESTIONS.

Note A.—5000 lbs. of sugar, the product of 5 acres of cane, at 100 lbs. per acre, at 5½ cents per lb. -	$275 00
125 gallons of molasses at 18 cts. per gallon, at the rate of 25 gallons per acre, - - - -	22 50
Total of the gross product of one hand,	$297 50

Note B.—The annual expense of a plantation containing 1200 acres, cultivated in cane by 80 negroes, is as follows:

Salt meat, spirits, - - -		$830
Clothing, namely, shirts, pantaloons, woollen coats, hats, shoes, &c. -		1,200
Medical attendance and medicines,		400
Indian corn at 5 bits per barrel, -		1,000
Overseer and sugar maker's salary -		1,000
State and parish taxes, - -		300
Annual losses, namely, the 2½ per cent. as stated in the answer to question 9, on a capital of $50,000 in negroes,	$1,250	
Ten pairs of oxen at $50,	500	
Ten horses, at $100 each,	1,000	
Repairs of boilers, two sets,	550	
Repairs of ploughs, carts, &c.	300	3,600
		$8,830

Which sum divided by 80, the number of hands, gives $105. The gross annual product of a hand being -	297 50
And the annual expenses as stated, - - - -	105.00
Leaves a nett annual product of	$192.50

Note C.—1st. Statement of interest 10 3-7 per cent. on capital.

1200 acres at 50 dollars, -	$60,000
80 hands at $600 and charges, -	50,000
40 pairs of work oxen at $50 per pair,	2,000
40 horses at $100 each, - -	4,000
A horizontal sugar mill, - -	4,000
2 sets of boilers necessary for a plantation of 500 acres, at 1,500 dolls. each, - - - - -	3,000
Buildings, viz. sugar house, mill, curing house, - - -	22,000
12 carts at 100 dolls. each, -	1,200
30 ploughs at 10 dolls. each, -	300
1 pair of timber wheels at 200 dollars, hoes, spades, axes, barrows, scythes, - - - -	700
	$147,200

2nd. Statement of gross product.

1000 lbs. of sugar per acre, according to note A, at 5½ cts. per lb. -	$55 00
25 gallons molasses at 18 cents, -	4 50
Total,	$59 50

$59.50 per acre, multiplied by 400 acres, gives - - -	$23,800
Deduct annual expenses, per note B.	8,330
Leaves nett,	$15,470

Yielding an interest of 10 3-7 per cent on the capital of 147,200, as calculated for a sugar plantation of 1200 acres, cultivated by 80 hands.

Note D.—Statement of the calculation of 45 million dollars.—From a careful account taken in the month of August last, it appears that the whole crop of sugar amounted to 88,878 hogshead of 1000 lbs. each, dividing by 400 hhds. the product of a sugar plantation of 1200 acres we have 222 1-5 sugar establishments at 147,200 dollars capital each, which amounts to $31,597,840, say 31 millions for the 483 old establishments, stated to be in operation at the time the account was taken, and for the 214 newly erected works to be brought into operation at the end of the present year, also stated in said amount of 13,999,887 dollars, say fourteen millions.

Note E.—*For last paragraph of the letter in answer to Mr. H. H. Gurley.*

Introduction of foreign sugars during the year 1828, compared with the crop of Louisiana during the same year according to the report of the Secretary of the Treasury, dated February 18th of the present year, (1829,) the unrefined sugars imported into the United States, from the 30th September 1827, to the 30th September 1828, amount to 51,686,955 lbs. valued at 3,081,004 dollars, which is nearly the two-thirds of the sum total of our crop of the year 1828, amounting at the most to eighty-eight thousand hogsheads of one thousand pounds each, valued at 5½ cents a pound; sixty thousand hogsheads of which have been sent by sea by Louisiana to her sister states, and 28 thousand have been sent up by the river, or consumed, or refined in Louisiana, a sum of four millions and eight hundred and forty thousand dollars.

Baton Rogue, September 26, 1829.

The Agricultural Society of Baton Rouge to the Hon. H. H. Gurley, member of the House of Representatives in Congress.

Sir,—As all agricultural matters lie within our special province, we have thought it our duty, in consideration of the interest of Louisiana, to reply to your circular of the 25th of July.

To our answer to your twelve queries, we will annex a few explanatory observations.

As there are in this state plantations of more than three thousand acres, and tilled by more than two hundred negroes, and on the other hand, many farms of 20 negroes only, we have taken as a medium an establishment consisting of twelve hundred acres, cultivated by eighty hands. It is probable that, at the termination of the year 1828, our more extensive plantations, to the number of four hundred and eighty, bore an average of six hundred acres; each farm yielding annually, two hundred hogsheads. But it appears evident, that the expense of clearing, improving the lands, &c. comparatively greater for these establishments, would leave but a trifling profit for those planters who make less than two hundred hogsheads. Hence we have chosen as a just medium, a farm of twelve hundred acres, by no means disproportional to our agricultural situation.

A sugar plantation of twelve hundred acres, to be well worked, would require a force of eighty hands. In the prices we have fixed on land and negroes, on the expenses necessary for building, the purchase of cattle, &c. we have by no means exaggerated. Within the distance of fifteen leagues from New Orleans, lands adapted to the cultivation of sugar could not be purchased at fifty dollars the acre, and young, vigorous, creole negroes, or such as are acclimated, or understand some trade necessary for a sugar farm, such as carpenters, coopers, brick-makers, blacksmiths, masons, &c. are valued at more than six hundred dollars.

In the annual expense of establishing a sugar plantation, a number of little articles have been passed over, all of which together are by no means inconsiderable, viz. the charge of keeping the land and roads in repair, the purchase of materials for fencing, the expense incurred by the elopement of slaves, the purchase or construction of hogsheads, casks, &c.

Thus we find, that summing up all contingent expenses, a sugar plantation of 1200 acres, would require a capital of 150,000 dollars, to wit: 50,000 for the land, 50,000 for the purchase of negroes, and 50,000 for improvements, cattle, and implements of husbandry.

If in the neighborhood of New Orleans, there are plantations that yield more than one hogshead per acre, we should consider the fact, that the more we are removed from this latitude, the less productive is the cane. We are therefore of opinion that our estimate of one hogshead per acre, or of 400 hogsheads from 400 acres, is rather above than below the true estimate; and that it must be understood to apply in cases when no accidents occur, such as early frosts, heavy winds, &c. Finally, if in the last year there were even a few instances of plentiful crops, in which each negro is represented as having made more than $192.50, they are happy and extraordinary exceptions to the general rule, in opposition to which, a number of planters could be cited, who have not made $150 per hand, although the quantity of sugar made in 1828, has rendered it a memorable epoch for Louisiana.

The truth is, that the diminished and diminishing price of cotton, not repaying the planter's toil, and the belief that the duty on the importation of foreign sugar would be permanent, have induced many to incur heavy engagements, in proportion to their means which they could not meet, if instead of a return of 10 per cent. they derive an income of only 8 per cent.

We cannot conceal from ourselves, nor from you, sir, this truth, that the repeal of duty on foreign sugar would be most disastrous to Louisiana, since the immense capital employed in 700 sugar farms, and estimated at forty-five millions of dollars, would sustain an immediate decrease of fifty per cent. that we would hear of nothing but failures and forced sales, that in a climate like ours in which to a humid atmosphere is joined an intense heat, interrupted by untoward and alternate series of continued rains, after long droughts; where, on account of the humidity, we can cultivate with success, neither wheat, barley, oats, hemp, flax, the vine, nor the olive;—where we have been compelled to abandon the cultivation of indigo, on account of the ravages of insects, and where at last even cotton must be forsaken, when (as has already been nearly the case) it will be found insufficient for the support of the labourer, and yet, sir, might Louisiana still prosper, were she not deprived of the sole hope afforded her by the cultivation of sugar, but without that resource, in this said Louisiana, the lands uncultivated would become of little value and soon covered by the magnolia, a tree unfit for any useful purpose, and even rejected as fuel, by the masters of steamboats, (who find its flame neither sufficiently strong nor lasting,) and our soil now so rich and fertile, would become a vast forest of useless trees.

It may be asked, how the West Indies, after paying the duty, can still profit from the exportation of sugar, and that *we* cannot?—The answer is simple. Placed in the most favorable of climates, their crops, throughout the year, are uninterrupted, whereas we have but two months for the rolling of ours. Besides this, other causes operate in their favour. It is, by no means, our intention to enter into political subjects, examine the right of importation, nor inquire whether in a country like ours, where the only revenue is derived from the customs, we can dispense with them, with advantage to ourselves, or even without danger to the Union. We are sufficiently aware of the salutary effects of the tariff, since it rewards the industry of one of our States, and has been so framed, with respect to the importation of foreign sugar, as to be of advantage to our finances, and at the same time that it admits that quantity, which Louisiana fails in supplying, would, were we to repeal it, tend greatly to injure our domestic manufactures. Our sole design has been to prove, that by annulling, or even diminishing the duties on foreign sugar, the inhabitants of Louisiana would sustain an irretrievable injury.

(From the Richmond Enquirer.)

TOBACCO.

We have promised the first space we could spare, after the dissolution of the Convention, to the following excellent communication. It is a word in season upon one of the most interesting departments of our Rural Economy. It is from one of the most successful planters in the county of Louisa—whose tobacco uniformly commands in the Richmond market, the *first-chop* prices. His precepts, therefore, are confirmed by his own experience. We recommend it to the consideration of our subscribers who are engaged in cultivating the "Indian weed."

To the Editors,—I have had it some time in contemplation to express my sentiments relative to the cultivation and management of tobacco, through the medium of your paper.

It should be the object of every Virginia planter to reserve as much plant land as he can, for future years, as it will probably become very scarce. Having made many experiments, I find it the most judicious plan to commence the preparation of such land in the month of August or by the first of September. It should be first covered over with manure, to the thickness of an inch, and this manure should be immediately succeeded by a heavy stratum of green wood. The land should be suffered to remain in this situation, until the first of January, when it should be burnt and sown as usual. A bed having undergone this process is productive of many more plants than one of a similar dimension, prepared in the ordinary manner, and the plants are large enough to be drawn much sooner.

New land, intended for tobacco, should be well grubbed, &c. It should then be coultered at least four times, observing to reverse the direction of the coulter every time. The coulter should be succeeded by a harrow, the application of which should be repeated, until all the roots upon the surface are gathered. The land should then be checked off, with a coulter, at the distance of three feet three inches.—A small plough should be run twice on each side of the impression, made by the coulter, forming a bed which should be crossed by a shovel plough at the distance of three feet three inches.

The prosecution of this course not only tends to abridge labour, but it tends to preserve the tobacco from the fatal effects of drought, much longer than the usual mode of cultivation. In new land, prepared in the above manner, a labourer can make two thousand hills per day. Old land should be prepared in a similar manner, except that the coulter should only be used to lay off the land. A labourer in old land thus prepared, can make four thousand hills per day.

Where there is a scarcity of manure, I think it best to open a trench with a large plough, into which the coarser part of the manure should be placed; upon this trench the hills should be made, and the manure should be stirred as little as possible; it will act sufficiently soon to make a good crop of tobacco. In cultivating a crop of tobacco, I think the coulter should be used more than any other instrument. It should be suffered to run ten or twelve inches deep; more moisture will be imparted to the plant, and it will not suffer as much from drought as tobacco cultivated in the usual manner.

Upon common land, we should never exceed eight leaves in topping. If it be topped higher, the bottom leaves will be perfectly ripe and on the decline, when those on the top are green and growing. But upon land of a superior quality, tobacco should be topped to twelve and sixteen leaves; if topped lower, the fibres will be coarse, and the tobacco will be consequently less valuable than of a more silky aspect.

I think it an expedient plan to take from the bottom of the plant (a few days before it is ripe enough to be cut) four or five leaves, which will make very good lugs. The balance of the plant having been protected from the dirt, by the bottom leaves, will be clean, and when stripped can be sorted with greater facility than it could be if the bottom leaves were to remain. After cutting, the planter should consider what kinds of tobacco will best suit the buyers. If he conclude that they will most admire the Piebald, he should proceed to hang it upon the scaffold, crowding it in such a manner as to have it impervious by the beams of the sun. The lower extremities should approach so near the ground as not to be agitated by the winds. Green brush should be placed around the scaffold to shield the tobacco from sun and air. It should remain in this situation about four days, at the expiration of which time, it will be yellow. It should then be put into the house and cured by kilns. I recommend kilns, because they cure tobacco without impregnating it with smoke, and because the house is not exposed to accidents from fire, as it is, in the old way.

If the planter wish to cure his tobacco a nutmeg colour, he should put it upon the scaffold in the ordinary manner, where it should remain four or five days. It should during this time be as much exposed to the sun as possible. After going through this process, it should be taken down and cooped—it should remain cooped until it becomes warm; after becoming warm, it should be put into the house, and cured by the application of heat through a kiln. As to the piebald tobacco, I think the time not far off when it will be objected to. I believe that a portion of it always will be highly esteemed, but such as is artificial will undergo an unfavorable change in crossing the Atlantic.

If it be desirable to retain any particular colour on a given tobacco, it will be necessary to pack it down as soon as it can be packed with safety. In stripping, the four top leaves should be put into one bundle, which will probably be the best of the plant. Those which are next best should be put to themselves, which two kinds should be kept and pressed separately. After tobacco is stripped, it should be put into boxes and kept in this situation until the first of March, when it should be hung up by tying two bundles together, which can be easily done with strings made of corn-husks. This is a much better plan than to separate the leaves and hang the bundles astride sticks. The bundles will remain perfectly straight while suspended upon the stick; by pursuing the old mode, they will be apt to become crooked. It should remain hung up until it becomes perfectly hard and moderately soft again: it should then be taken down and put into the boxes again, where it should remain covered with plank doors and weighted with stone until the first of June, when it should be taken out for the purpose of pressing. If upon opening the boxes it be found to be too hard for pressing, it should be spread over the floor and thinly covered with green clover or oats; under which it should remain a few hours. Upon being examined, it will be found to be sufficiently soft for pressing. It should then be taken from beneath the clover and replaced in the boxes, out of which it can be taken and pressed at pleasure.

The pursuance of this course not only tends to bring the tobacco in pressing order, but it tends to promote an uniformity of odour. The hogsheads in which tobacco is packed for market, should be composed of timber thoroughly seasoned. They should be placed where there is no probability of their getting wet.

Tobacco often sustains damage before it gets to market; and the deluded owner attributes it to the negligence of the managers of the warehouse. Tobacco houses should be properly crammed, that the tobacco may not be exposed to the changes of the weather.—I think it very well to have windows, that the tobacco may be ventilated upon particular occasions. A Planter of Louisa.

(From the Troy Sentinel.)

TOBACCO—SEGARS.

In the summer of 1828, I made an experiment, my first, in the cultivation of tobacco, which resulted so favorably, as to have caused a great many inquiries, to all which I propose to give answers, in this communication. Early in 1828, a friend sent me some seed of the very best Spanish tobacco for segars, cultivated in Cuba, and about the same time I received from an old gentleman of about 80 years of age, a parcel of the Kites' Foot seed, with a letter of directions for raising the tobacco, from planting the seed, to curing the leaf, which must have occupied him a day or two. He was an experienced cultivator, in the modes of Virginia and the Carolinas. With these means, and some garden ground in good order, I determined on making an experiment. The seed, both kinds, was sown in seed beds, in April. The plants came up in May, were transplanted, and flourished well. I used no hot bed, nor any forcing process.

Knowing the mild quality of the tobacco of the tropics, it occurred to me, that compared with the production from the same seed, in our country, and far north of the tropical climates, *this* so very strong, *that* so weak, so mild, there must be some other cause, perhaps, only in the mode of cultivation. How would it do, to pull off the leaves when only partly grown? On seeing some of the best samples of the segar tobacco, best Spanish, in Albany or Troy, some hanks of which I procured, my suspicion seemed to be confirmed, or so far, at least, as to induce me to try this way, in an attempt to raise tobacco for my own segars. The samples were from Havana, and I kept them by me till my experiment was completed, and completely successful, as others say, who have tried my tobacco.

Some of my little crop, perhaps 20 plants, of each kind of seed, I suffered to grow till the heads became ripe, as it is termed, began to grow spotted with yellowish spots, and the leaves to become crimped and ruffled, turning up around the edges. These were then cut up, and hung in the shade till sufficiently dried, when the leaves were stripped off, and cured in the usual way. This tobacco is very strong, fit only for "*negro heads,*" the leaf thick and heavy, and the stem and fibres very large. No difference in favor of the plants from the Spanish seed.

All the rest, say about 150 plants, managed like the above, at first, set out in rows of two feet apart, were the subjects of experiment. I let some of the leaves grow to more than a third to a half their natural size, when they were pulled off and the little sucker leaf, just above the stem of each, was permitted to grow to about the same size, when this was pulled, and so kept on, till the 10th of November, the day before the first frost. These leaves make a very mild, pleasant segar, from which I have had 6000 made, as good as I wish to smoke. The produce from each plant, was strung up by itself, and those so managed yielded two to three times as much leaves, as the first mentioned, "raised as every body raises tobacco."

When the leaves ripened on the plants first noticed, sometime about the middle of August, I cut off the main stalk, near the ground. To try them for a *green crop*, I kept the young shoots and scions suckered, and thinned out; and cured them also, by themselves. They make mild segars, pleasant, like the rest.

If I were to raise any more tobacco, for segars, I should pull all the leaves when about one third grown, string them on twine, by passing a threaded needle through the thick part of each leaf and stalk, hang them in a shady, airy place to dry, then lay them in heaps, for 24 to 36 hours to sweat, and then call the tobacco cured fit for market.

I have plenty of tobacco seed, and will give to any one that will cultivate. It is an exhausting, unprofitable crop.

When the best samples of American tobacco, were selling at 2 to 3 cents a pound, mine would have brought 12½. Yours,

H. G. Spaffoad.

Lansingburgh, Jan. 27, 1830.

(From Hayward's Science of Agriculture.)

Vegetable and Animal Matter in Stables and Yards injurious to Horses and Cattle.

Whilst recommending the careful and effectual draining of stables, for the preservation of the urine, as the most valuable part of animal manure, I also state a circumstance, which cannot be thought unworthy of notice to agriculturists, which occurred to me, to show how necessary this is also to the health of animals.

I took possession of some stables, with the horses that had been sometime kept in them, and to my misfortune, in a very short time I found that the horses kept in those stables had been subject to that dreadful disease, called the mad staggers, for several years. Some horses had died, and the horses then there, and which had been for sometime kept in the stables, were in a wretched condition. Two fine fresh horses which were put into them, were within a few months seized with the mad staggers, and one of them literally killed himself by knocking his head against the manger and stall; the other was saved by copious bleeding, and removed into a fresh stable, but was so reduced as to be lessened in value one half. My neighbours advised the pulling down the stables, considering the disease infectious; but having, on going into the stables early in the morning been almost suffocated and blinded by obnoxious gas, I examined the floor and drains, when I found the former to consist of large burr stones, laid on a stiff clay; and the floor sunk so low below the drain, as not to admit of the draining away of the urine. This struck me to be a sufficient cause to affect the brain of any animal confined in it, the same as it had the horses. I therefore had the floor taken up, relaid, and properly drained; and the walls and ceiling, manger, cribs, &c. washed with quick lime; and from that time for ten years I have never had a diseased horse.

(From the New England Farmer.)

DISEASED SHEEP.

Mr. Editor,—In compliance with the request of your correspondent, A. L. H. (vide N. E. F., Jan. 22d) for some advice relative to what he describes as a destructive malady in his flock of sheep, I beg leave to inform him of the result of my experience and observation for several years, during which my flock has risen from five hundred to near two thousand.

I have heard and read much of the diseases of sheep, and have been agreeably disappointed in my own case, by discovering no diseases but the following: *Scouring*, arising from unsteady and injudicious feeding; worms in the head, attributed to the fly; and old age. In regard to worms in the head, I am inclined to consider this, also, as incident to poor keeping, which predisposes the animal to disease.

I have seen all the symptoms named by A. L. H. attending my *young* sheep, and could trace the cause directly to gross negligence in the keeper, from scanty subsistence at critical periods. Such as weaning time, change from grass to hay, and from hay to grass. No animal requires more methodical treatment than the sheep. The great desideratum seems to be, to keep them in as uniform a condition as possible. Not too warm, or confined; neither starved, or surfeited.

A NEW YORK FARMER.

Saratoga County, N. Y. Feb. 1, 1830.

(From the New England Farmer.)

ADVANTAGE OF THOROUGH CULTURE.

We understand that the following is the amount of produce raised on a farm of forty-eight acres in the vicinity of the city of Boston, (forty-eight acres excluding building grounds.)

31 tons of English hay.
A small lot of Lucerne, valued (cut green for fodder) five dollars.
800 bushels potatoes.
417 " beets.
450 " mangel wurtzel.
886 " or 21 tons carrots.
Pasture for 14 cows 9 weeks, (aftermath.)
222½ bushels barley.
900 " onions.
100 " parsnips.
1000 cabbages.
600 bushels turnips.
2½ tons squashes.
Cash received for vegetables $306.64.
Amount used in a large victualling concern, $175.
Celery on hand, valued at $5.

RURAL ECONOMY.

CURING BACON.

The Edenton (N. C.) Gazette gives the following directions *for making good bacon*, obtained from a gentleman who has fully tested their value by experiment:

"Let the meat become perfectly cold before you cut it. Mix a quart of molasses with a bushel of fine salt, and with it rub the meat as long as it will take it. Hams from hogs weighing 150 lbs. and upwards, should remain in the cask, flesh up, twenty-one days; from 100 to 150 lbs. sixteen or eighteen days. When taken out to hang up, sprinkle them on the flesh side with about a teaspoonful of saltpetre to each ham, and on the same side rub pulverized red pepper. Hang them by the upper end. Before the warm weather commences, take down your meat, examine it carefully and wash it with strong ley made from clean ashes. Be careful not to give too much smoke. In damp weather, throughout the year, make a smoke with charcoal or the bark of red oak. By following these directions, I am convinced you will always find your meat sweet and free from insects."

[*Montgomery Alabama Gaz.*

Humble wedlock is better than proud virginity.

INTERNAL IMPROVEMENT.

ESSAY ON RAIL-ROADS.

(Continued from p. 382.)

From the London Mechanic's Magazine, for Oct. 17, 1829.

In our last number we gave an account of the commencement of this interesting and important competition. We now propose to resume the subject *de novo*, and to go into it with all the fulness and circumstantiality which it so pre-eminently deserves.

It may be necessary for the information of some of our readers to premise, that though railways have been for more than a century in use in Great Britain, and are now extremely numerous, the one which has been the scene of the present competition, is but the third which has been constructed in Great Britian for general use; that is to say, with the view of superseding entirely the employment of ordinary roads, by the public at large, as far as carriages of all descriptions are concerned; and that down to the day of this competition, it was still a question of some doubt whether a railway could be produced possessed of such extensive capabilities.

The first undertaking of the kind was the Surrey Railway, designed by Mr. Jessop; but the only use as yet made of that road has been for the conveyance by horses of heavy goods, at a rate of three or four miles per hour; and in consequence of its passing through a country of little traffic, it has rather disappointed the expectations of its projectors.

The second was the Stockton and Darlington Railway, on which steam-power was for the first time employed to propel passengers as well as goods, and with a degree of success which began to open the eyes of the public to advantages of which they had not even dreamt, in connexion with railway conveyance. It was here proved that by the employment of steam-carriages a speed of from five to eight miles an hour, according to the weight drawn, was readily attainable; and that the expense of this mode of conveyance was one-half, in some instances two-thirds cheaper than any other. Inside pssengers were conveyed at the rate of 1½*d* per mile; outside, 1*d*.; and the price of coals, which used at Stockton to be 15*s*. and 17*s*. per ton, was all at once reduced to 10*s*. 2*d*. From the 29th of September, 1825, when this railway opened, to the 29th of September, 1826, its receipts increased progressively from £700 to £1500 a month; and in the second year it had drawn to it nearly the whole carrying trade between Stockton, Richmond, Darlington, Yarm, &c. The turnpike road, too, which may be said to have been thus beaten out of the field, is actually four miles shorter than the railway; for to accommodate Darlington and Yarm, a more circuitous line was taken than would otherwise have been necessary.

As early as 1822, and of course long before these favourable results were known, the Liverpool and Manchester Railway had been projected by William James, Esq. Civil Engineer, and all the necessary surveys for it made by Mr. Vignoles, another able and intelligent member of the same profession; but in consequence of the strong opposition which was threatened by the whole body of canal proprietors throughout the kingdom, and other causes, the prosecution of the design languished till the progress of the Stockton and Darlington Railway towards completion; and the success of some preliminary trials upon it, animated the people of Lancashire with a new zeal in behalf of their own speculation. A deputation of gentlemen was appointed, consisting of Messrs. Ellis, Sanders, and Booth, of Liverpool, and Mr. Kennedy, of Manchester, to proceed to the north to inspect the Stockton and Darlington Railway, and also some collieries, in the north of England, where locomotive steam-engines have for several years been employed to transport the coal wagons to the nearest land or water communication. The report made by this deputation was so satisfactory, that it was immediately determined to prosecute the plan of the Liverpool and Manchester Railway with the greatest vigour: the whole capital required was subscribed within a few weeks; and in the following session of Parliament an Act was obtained containing all the requisite legal powers. The Act met, as had been anticipated, with a great deal of opposition; but as that opposition had no better foundation than the resistance made by the land-carriers of a preceding age to the introduction of canals, it necessarily shared a similar fate. The Marquis of Stafford, who was at first its most powerful opponent, became at length so satisfied of the superior advantage which it promised to confer on the country, that his Lordship not only withdrew his opposition, but purchased a thousand shares in the concern.

In the summer, or rather autumn of 1826, the formation of the railway commenced under the direction of Mr. George Stephenson, of Newcastle-upon-Tyne, who had been appointed by the Company to carry the design of Mr. James into execution. The natural character of the country through which the road passes, made the undertaking one of considerable difficulty, as will be readily perceived from a simple detail of the work which Mr. Stephenson had to perform. There were, first, two tunnels, one 2200 yards, and the other 291 yards, long, to be excavated under the town of Liverpool, and afterwards six considerable eminences to be cut through; these excavations, too, had mostly to be made through solid rock (red sandstone,) and amounted altogether to upwards of two millions of cubic yards. While in some parts it was thus necessary to hew out a level with the pickaxe, there were others where the level had to be maintained by raising artificial mounds (or embankments as they are less properly called,) bridges, and viaducts. One of these mounds, called the Broad Green Embankment, rises to an elevation of 70 feet above the level of the surrounding country; another, which is about four miles long, extends over a moss (Chat-moss,) which three years ago was scarcely passable even to pedestrians. Of bridges and viaducts the number required to be erected on the line was 25; one of which (the Sankey) was to consist of nine arches of 50 feet span, and another (the Newton,) of four arches of 30 feet span; besides which, there were to be 36 culverts of large dimensions, with several of a smaller size. When we consider the great number and variety of these works, the difficulty of some, and the stupendous nature of others, it is really wonderful to think how much has within the space of three brief years been accomplished. Both the tunnels, all the bridges but one (that over the Irwell,) and all the culverts, have been already finished; and so nearly have the different mounds and excavations been likewise completed, that of 33 miles (the estimated length of the railway) only about 4 miles remain to be executed. We need scarcely say how greatly all this redounds to the honour of the engineer. So much work of a difficult description could not have been performed in so short a time (and it is but fair to add so well,) unless the labour bestowed on it had been under most intelligent direction. There are some things which are mere works of time; but here we see art triumphing over time; the labours of the head far transcending those of the hand.

It is now understood that early in the spring of next year, the whole of the railway from Liverpool to Old Field Road, near the site of the intended bridge over the Irwell, will be ready for travelling on; and that the opening may not be deferred till the erection of that bridge, it is proposed to erect a wharf and ware-houses at Old Field Road, where the railway will be considered to terminate, until he continuation of the line into Manchester is completed.

The rails have been as yet laid down on about fourteen miles of the road only; but as this is a matter which requires little time, no delay is apprehended on this account. The sort of rail employed is that called the edge-rail, in contradistinction to the flat rail or tram-plate, now so generally abandoned, where ease of draught is consulted; not however the common edge-rail, but that particular description for which Mr. Birkinshaw, of the Bedlington Iron Works, has a patent. The following description of the construction and advantage of these rails we extract from the Supplement to the Encyclopædia Britannica.

"The flat rail has been now almost entirely superseded by the edge-rails, which are generally admitted to be decidedly superior; the edge of the bar presenting less friction, and being less liable to clog up with dust and mud, or to be obstructed with stones driven off the road upon the surface of the rails. The edge-rail consists merely of a rectangular bar of cast-iron, three feet long, three or four inches broad, and from one-half inch to one inch thick; set on its edge between sleeper and sleeper, and bearing on the sleepers at its extremities. The upper side of the rail is flanched out to present a broader bearing surface for the wheels, and the under side is also cast thicker than the middle for the sake of strength. But the greatest strength is evidently attained by casting the rail not rectangular, but deeper in the middle than at the ends, to resist better the transverse strain. The ends may be safely reduced nearly to one-third of the depth in the middle, and still be equally strong. To unite the rails together, and at the same time preserve them in their places and in their upright position, and to bind them also to the sleepers, they are set in a cast iron socket or chair, which is attached firmly to the sleeper. This socket embracing the extremities of the adjacent rails, which are here made to overlap a little, a pin is driven at once through the rails and through the socket, and binds the whole together. This is the general method of uniting the edge-rails; but the shape and dimensions of the metal chair and of the overlap of the rails are varied according to the judgment and taste of the engineer. Since edge-railways have come into more general use, an essential improvement has been made in their construction by the use of malleable iron, in place of cast-iron, in forming the rails. The advantage of malleable iron rails is, that they are less subject to breakage than cast-iron, a circumstance of importance in this case, where it is not easy to avoid those jolts and sudden shocks which cast-iron is least of all capable of withstanding; and though they should happen to give way, they are easily repaired. They can also be laid in greater lengths, and requiring therefore fewer joints; they can be bent with ease to the curvature of the road: when worn out, they are of greater value; and lastly, their first cost is very little, if at all, greater than that of cast-iron rails. Malleable iron is, no doubt, less able to stand exposure, decaying more readily under the influence of air and moisture; but hitherto this inconvenience has not been felt; and, on the whole, the malleable iron is now decidedly preferred. These rails are laid and joined in the same manner as the cast-iron, only in greater lengths."

The writer then proceeds to describe Mr. Birkinshaw's improvement:—

"An improvement has lately been made in the construction of malleable iron rails, which promises to be of essential utility. It consists in the use of bars, not rectangular, but of a wedge form, or swelled out on the upper edge. In the rectangular bar, there is evidently a waste of metal on the under surface, which, not requiring to be of the same thickness as where the wagon wheel is to roll, may be evidently reduced with advantage, if it can be done easily. The bar may then be made deeper, and broader at the top than before, so as with the same quantity of metal to be equally strong, and present a much broader bearing surface for the wheel. The peculiar shape is given them in the rolling of the metal, by means of grooves cut in the rollers, corresponding with the requisite breadth, and depth, and curvature of the proposed rail. Mr. B. recommends the rails to be of 18 feet in length. We have seen one of these patent rails at Sir John Hope's colliery; and it certainly forms the most perfect iron rail which has hitherto been contrived; combining very simply and ingeniously in its form the qualities of lightness, strength and durability. It is twelve feet long, two inches broad along the top, about half an inch along the bottom, and still thinner between. It rests on sleepers at every three feet, and at those places the rail is two inches deep, while in the middle point between the sleepers it is three inches deep. All these inequalities, we believe, are produced on the metal by means of the rollers; and this circumstance is well deserving of attention, as it may obviously be applied not merely in the formation of railways, but to a variety of other purposes in the arts. The moulding and shaping of the metal in this manner is quite a new attempt in the iron manufacture, and it is not easy to say how far such an invention may yet be carried by the skill of British artists."

Mr. Stephenson, it will be seen, had good reason for the preference he has given to Mr. Birkinshaw's rails. An engineer of great experience whom we met at the present competition, suggested what we think would be a great improvement in them; namely, that they should overlap at the extremities, in the same way, in fact, as most of the old edge-rails did. The advantage of an unbroken continuity in the bearing surface seems not to have been sufficiently consulted.

The total cost of the railway is not expected to be much less than £650,000, or about £20,000 per mile. This is much more than was ever before expended on a railway; but the excess is to be accounted for partly by the number of deep cuttings, lofty embankments, &c., which were necessary, and partly by the circumstance, that compensation had to be made to the proprietors of the ground assumed for the purposes of the railway, while in most other cases there has been no need of such compensation; railways being, nine times out of ten, constructed by individual proprietors on their own lands, and for their own exclusive benefit. Were the expense, however, even to exceed £650,000—nay, to be even twice or thrice as much—we are convinced there will be revenue enough to yield a handsome return. The traffic between Liverpool and Manchester is probably greater than what exists between any other two points of the kingdom. The one being the principal port for the importation of cotton, and the other the chief seat of its manufacture; this alone serves to unite them in bonds of the closest alliance. The total quantity of merchandise passing between the two towns is stated to be 1200 tons per day; and though it is not to be expected that the same result will take place here as has been exhibited in the case of the Stockton and Darlington Railway, (for the Liverpool and Manchester Railway will still have the Irwell and Mersey navigation to contend with, and probably at reduced rates,) yet if only one half of this immense traffic is transferred to the railway, it will at 2*d.* per ton each mile, yield an annual income of £52,478 13*s.* 4*d.* The carriage of passengers may reasonably be expected to add to this sum at least £25,000 more.

The profit to be derived by the shareholders forms, however, but a minor consideration, compared with the vast advantages that will result to the inhabitants of Liverpool and Manchester, and indirectly to the nation at large, from increasing the celerity and cheapness of communication between the two towns. But to appreciate duly, what is likely to be effected in these respects on this new line, we must pause a moment to reflect on what was the maximum of effect previously realized on the Stockton and Darlington Railway. It was not more, as we have before stated, than eight miles an hour; and the idea of any thing much beyond that rate was generally scouted as visionary. Mr. Wood, who published his book on railways, after the opening of the Stockton and Darlington Railway, was pleased to say, "It is far from my wish to promulgate to the world that the *ridiculous* expectations, or rather *professions*, of the enthusiastic speculatist will be realized, and that we shall see engines travelling at the rate of *twelve, sixteen, eighteen,* or *twenty* miles an hour. Nothing could do more harm towards their adoption or general improvement than the promulgation of such *nonsense*!" The directors of the Liverpool and Manchester Railway appear to have had nearly the same impressions when they offered the present premium of £500 for "the most improved locomotive engine." They stipulated that it should be "capable of drawing after it day by day on a well constructed railway, on a level plain, a train of carriages of the gross weight of 20 tons, including the tender and water-tank, at the rate of *ten miles per hour.*" More they did not ask for; and as if to evince how perfectly they agreed with Mr. Wood as to the "nonsense" of expecting more, they selected that gentleman to be one of the judges of their competition.

The proceedings on this first day of the competition are already before our readers. It has been seen from them that Mr. Wood has been spared to see, not only what he declared to be "ridiculous" and "nonsense," reduced to an unquestionable matter of fact, but of witnessing something so much more extraordinary, that had any one hinted it to him in his days of incredulity, he would, we presume, have pronounced it to be absolute madness. The least powerful of the two engines then exhibited, reached nearly the highest degree in Mr. Wood's scale of "nonsense," having gone without any load, at the rate of about eighteen miles an hour; while "The Novelty" of Messrs. Braithwaite and Erickson actually realized almost double that speed!

"When we consider," says a writer, in the Liverpool Chronicle, "that at this rate of going, Liverpool and Manchester, which are at present near half a day's journey distant, will be brought within an hour's travel of each other; and pass from this fact to the contemplation of the vast changes which so rapid a mode of conveyance will effect in all the relations of society in this quarter of the kingdom, we feel at a loss for examples with which to contrast this great triumph of human ingenuity." But suppose we go a step farther, and estimate what the effects will be, of extending this system of communication over the whole kingdom; what mind is there so comprehensive as to embrace all the important consequences to which it will lead? We think we shall not go too far in saying, that it will produce an entire change in the face of British society. The effect will be much the same, as if the work-shop of the manufacturer were brought alongside the quay where he obtains his raw material, and whence he sends it forth again in a manufactured shape to the most distant parts of the world; or as if the collieries, iron mines, and potteries of the heart of England were scattered along its shores. Peculiar local advantages will figure less than they have done in our manufacturing and commercial history; since whatever one place produces, can be so quickly and cheaply transported to another; and instead of our manufactures continuing concentrated in two or three of our large towns—to the great injury of the moral and physical condition of those employed in them, we may expect to see them spreading gradually over the whole kingdom. *Living in the country,* will no longer be a term synonymous with every sort of inconvenience: and it will come to be a mere matter of choice, whether a man of business lives close by his counting-house, or thirty miles from it. The rents of land and houses will not be raised by the change, but they will be equalized; they will be reduced in town and raised in the country. In proportion, too, as the intercourse of men with each other, and the interchange of commodities between them is thus facilitated, the greater will be the cheapness of every thing; the more our manufacturers will have it in their power to bear up against that foreign competition, by which they are so much endangered. The oftener (to use a common phrase,) the penny is turned, the greater the profit; and the quicker a trader's returns, the smaller the capital he requires in business. In fine, we may say of railways, in general, as a worthy gentleman is said to have observed of the Stockton and Darlington line, and with ten times greater probability of seeing our prophesy realized—"Let the country but make the rail-roads, and the rail-roads will make the country."

Wonderful as were the results which have suggested these observations, they were abundantly confirmed by the farther experiments which we now proceed to detail.

(To be continued.)

Description of "The Novelty."

(Concluded from p. 382.)

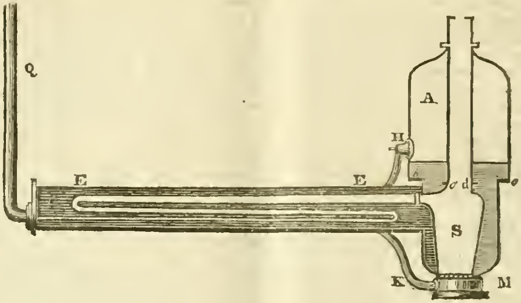
Having described the external appearance of this engine, we now proceed to explain its interior construction: for the better understanding of which, we present our readers with a rough, sectional view (drawn from recollection) of the more material parts.

S is the furnace, which is supplied with fuel from the hopper L (see the annexed engraving, No. 3.) through the vertical tube in the centre of the steam-chamber A; the heated air from this furnace passes off through a flue, which is made to wind twice or thrice up and down the cylinder EE, and gradually diminishes in diameter till its termination in the escape-pipe Q. The parts shaded in the sketch are those occupied by the water, which, it will be observed, surrounds the boiler as well as the flue.

The extent of surface exposed to the action of the heat by this arrangement, is a great deal less than in other engines; and were the heat left to circulate as in other engines, through the agency of what is commonly called atmospheric draught merely, there would probably be nothing gained in respect of the quantity of steam generated. But instead of depending on the atmospheric draught, Messrs. Braithwaite and E. make use of the bellows-sort of apparatus (CK) in No. 1, to force the heated air through the flue; and by thus supplying a greater quantity of caloric in a given time, they obtain an effect precisely analogous to what would result from doubling or quadrupling the size of the furnace and the extent of the flue. Nor is this all: the quantity of atmospheric air which is introduced under and through the fire by the pipe K, has not only the effect of forcing the heated air onwards through the flue, but is itself a source of heat—equivalent to the employment of so much additional coke. It is in these two circumstances—the acceleration of the draught and the supply of fuel (if we may so speak,) derived from the atmosphere—that the great merit of "The Novelty"—the secret of its vast superiority—consists. It makes up by the quickness of its operations for the diminutiveness of its dimensions, by what it borrows from the air around it for the small supply of coke which it carries.

Neither does the rapidity with which the current of hot air passes through the flue constitute any exception to the efficiency of the process: for such is the aptitude of small circular pipes, like this, to abstract heat from any fluid conveyed through them, and to part with it again to surrounding substances, that little, if any, caloric is suffered to pass unappropriated.

NOVELTY, No. 3.



The flue is made to diminish *gradually,* because the heated air cools in its passage through it, and gradually requires less and less vent. It has also a downward inclination given to it, as represented in the sketch—such, that if a marble ball were dropped in at the furnace end, it would roll rapidly through all the convolutions of the pipe to the other extremity; and the object of so constructing it, is, that any dust which may arise from the furnace may have always a descending passage to escape by.

In the specification of the patent which Messrs. Braithwaite and Errickson have taken out for this mode of generating steam, mention is made of two air-forcing pipes: one by which atmospheric air is forced on to the *top* of the fuel in the furnace; and another through which the air is forced under the bottom of the fuel. A double supply of air, however, is only considered necessary where coal is the fuel employed, in order to insure its combustion more effectually; and where fuel of the purity of coke is made use of, as in "The Novelty," the upper pipe is dispensed with.

There are, of course, cocks to regulate the transmission of air through the pipe K; also safety-valves to the boiler and steam-chamber; but these, as well as the feed-pump for supplying the water from the tank, have been left out in our sketches, as being unnecessary to illustrate the principle of the engine.

It is now fitting we should explain more particularly, than has yet been done, the cause of those accidents by which some doubt has been for the moment thrown on the soundness of that principle. The engine, it appears, had been got up in a hurry—having been begun and finished within the short space of the six weeks immediately preceding the competition—and had never been subjected to any sort of proof. It was not to be expected, therefore, that it should be found perfect at all points. The part which was first observed to perform its office insufficiently, was the pipe of the feed pump; and the consequence was, that the water, which it is the business of this pump to keep always at the height marked in our sectional sketch, sunk below the level of the flue of the furnace; which flue being thus left exposed to a dry temperature of high elevation, gave way near to the flange *a*. In order to get at this damaged part of the flue, it was necessary to lift off the steam-chamber A, and for this purpose to undo the joints, *b*, *c*, *d* and e. To renovate the flue was an easy matter, but not so to restore the joints all at once to the state in which they previously were. The cement with which they were re-secured would have required a week at least to harden properly; but it was as yet scarce twelve hours old when the engine started to perform the last task assigned to it. As might have been naturally expected, the joints yielded to the high temperature (300°) to which they were exposed; the steam began to escape at all points; and the efficiency of the engine was for the time and occasion, at an end.

The impartial reader will see nothing in any of these mischances tending in the least to discredit the principle on which "The Novelty" is constructed. It was not the peculiarity of that principle which caused either the defective feed-pipe to go wrong, or the unduly-exposed flue to crack, or the green joints to give way. The principle worked admirably, as long as every part of the machinery stood firm, and had fair play: nor can a doubt be reasonably entertained, that had the engine been previously proved (as cannon and muskets are proved,) and been kept in good working order, it would upon the trial for a continuance have fully realized the expectations which its previous performances had excited. The grand point on which its superiority depends had already been fully established; namely, that it can generate a greater quantity of steam in a given time than was ever before produced by any apparatus of equal capacity. No further trial was wanted to show that what it could do for one hour in this respect, it would do for any number of hours. There might be errors committed in estimating the quantity of water and fuel requisite for a long journey; but there could be none in assuming that the power of the air-forcing pump to augment the heat, and accelerate the circulation of the heated air, must of necessity remain the same, whether the journey is short or long. Every thing needful for the manifestation of the master principle of the engine had been done; and all that was left unaccomplished, was but such a practical display as might convince those who, unable to appreciate principles, look only to results.

LADIES' DEPARTMENT.

THE MISSES.

Addressed to a careless Girl. By the late Mrs. Barbauld.

We were talking last night, my dear Anne, of a family of Misses, whose acquaintance is generally avoided by people of sense. They are most of them old maids, which is not very surprising, condering that the qualities they possess are not the most desirable for a helpmate. They are a pretty numerous clan, and I shall endeavour to give you such a description of them as may enable you to decline their visits; especially, as though many of them are extremely unlike in temper and feature, and, indeed, very distantly related, yet they have a wonderful knack at introducing each other—so that, if you open your doors to one of them, you are very likely, in process of time, to be troubled with the whole tribe.

The first I shall mention, and indeed, she deserves to be mentioned first—for she was always fond of being a ringleader of her country—is *Miss Chief*. This young lady was brought up, until she was fourteen, in a large rambling mansion in the country, where she was allowed to romp all day with the servants and idle boys of the neighbourhood. There she employed herself in the summer, in milking into her bonnet, tying the grass together across the path to throw people down; and in winter making slides before the door for the same purpose, and the accidents these gave rise to always procured her the enjoyment of a hearty laugh. She was a great lover of fun; and at Christmas time distinguished herself by various tricks, such as putting furze balls into the beds, drawing off the clothes in the middle of the night, and pulling people's seats from under them. At length, as a lady, who was coming to visit the family, mounted on rather a startish horse, rode up to the door, Miss Chief ran up and unfurled an umbrella full in the horse's face, which occasioned him to throw his rider, who broke her arm. After this exploit, Miss was sent off to a boarding school; here she was no small favourite with the girls, whom she led into all manner of scrapes; and no small plague to the poor governess, whose tables were cut, and beds hacked, and curtains set on fire continually. It is true, Miss soon laid aside her romping airs and assumed a very demure appearance; but she was always playing one sly trick or another, and had learned to tell lies, in order to throw it upon the innocent.

At length she was discovered writing anonymous letters, by which whole families in the town had been set at variance: and she was then dismissed the school with ignominy. She has since lived a very busy life in the world; seldom is there a great crowd of which she does not make one, and she has even frequently been taken up for riots, and other disorderly proceedings, very unbecoming in her sex.

The next I shall introduce to your acquaintance is a city lady, *Miss Management*, a very stirring, notable woman, and always behindhand. In the parlour, she saves candle ends: in the kitchen, every thing is waste and extravagance: she hires her servants at half wages, and changes them at every quarter; she is a great buyer of cheap bargains, but as she cannot always use them, they grow worm and moth eaten on her hands. When she pays a long score to her butcher, she wrangles for the odd pence, and forgets to add up the pounds. Though it is her great study to save, she is continually outrunning her income, which is partly owing to her trusting a cousin of hers, *Miss Calculation*, with the settling of her accounts, who, it is very well known, could never be persuaded to learn her multiplication table, or state rightly a sum in the Rule of Three.

Miss Lay and *Miss Place* are sisters, great slatterns; when Miss Place gets up in the morning she cannot find her combs, because she has put them in her writing box. Miss Lay would willingly go to work, but her housewife is in the drawer of the kitchen dresser, her bag hanging on a tree in the garden; and her thimble any where but in her pocket. If Miss Lay is going a journey, the keys of her trunk are sure to be lost. If Miss P. wants a volume out of her book-case, she is certain not to find it along with the rest of the set. If you peep into Miss Place's dressing-room, you find her drawers filled with foul linen, and her best cap hanging upon the carpet broom. If you call Miss Lay to take a lesson in drawing, she is so long in gathering together her pencils, her chalk, her Indian rubber, and her drawing paper, that her master's hour is expired before she has well got her materials together.

Miss Understanding.—This lady comes of a respectable family, and has a half sister distinguished for her good sense and solidity, but she herself, though not a little fond of reasoning, always takes the perverse side of any question; she is often seen with another of her intimates, *Miss Representation*, who is a great tale-bearer, and goes about from house to house, telling people what such a one said of them behind their backs. *Miss Representation* is a notable story teller, and can so change, enlarge, and dress up an anecdote, that the person to whom it happened shall not know it again: how many friendships have been broken by these two, or turned into bitter enemies! The latter lady does a great deal of varnish work, which wonderfully sets off her paintings, for she pretends to use the pencil; but her productions are such miserable daubings, that it is the varnish alone, which makes them pass to the most common eye. Though she has colours of all sorts, black varnish is what she uses most. As I wish you to be very much on your guard against this lady, whenever you meet her in company, I must tell you she is to be distinguished by a very ugly leer; it is quite out of her power to look straight at any object.

Miss Trust, a sour old creature, wrinkled and shaken with the palsy. She is continually peeping and prying about, in the expectation of finding something wrong; she watches her servants through the key-hole, and has lost all her friends by little shynesses that have arisen no one knows how; she is worn away to skin and bone, and her voice never rises above a whisper.

Miss Rule.—This lady is of a very lofty spirit, and had she been married, would certainly have governed her husband: as it is, she interferes very much in the management of families; and, as she is very highly connected, she has as much influence in the fashionable world as amongst the lower orders. She even interferes with political concerns, and I have heard it whispered that there is scarcely a cabinet in Europe where she has not some share in the direction of affairs.

Miss Take.—This lady is an old doting woman, who is purblind, and has lost her memory; she invites her acquaintance on wrong days, calls them wrong names, and always intends to do just the contrary thing to what she does.

Miss Fortune.—This lady has the most forbidding look of any of the clan, and people are sufficiently disposed to avoid her as much as it is in their power to do; yet some pretend, that, notwithstanding the sternness of her countenance on the first address, her physiognomy softens as you grow more familiar with her, and, though she has it not in her power to be an agreeable acquaintance, she has sometimes proved a valuable friend. There are lessons which none can teach so well as herself, and the wisest philosophers have not scrupled to acknowledge themselves the better for her company.—I may add, that, notwithstanding her want of external beauty, one of the best poets in our language fell in love with her, and wrote a beautiful ode in her praise.

THE FARMER.

Baltimore, Friday, February 19, 1830.

☞ For three or four weeks past the weather has been very cold, with less intermission than is common in this climate; and, what is worse for the interests of farmers, for the first two weeks there was no snow to protect the grain from the severity of the frost. It is feared considerable damage has thus been done—garden fruits and shrubbery have undoubtedly been greatly injured. For a few days past we have had moderate weather, and there is now every indication of a "breaking up" of winter.

Latest Foreign News.

By the Herald, arrived at this port, Liverpool papers to the 8th January have been received.

The President's Message is published at length in the Liverpool and London papers.

Russia.—It is said that great discontent still prevails in Russia, in consequence of the peace, and a correspondence in the *Messager des Chambres* even says that a great coolness prevails between the Emperor and his two brothers, the Grand Dukes Constantine and Michael, but it is probable that the letter which is dated St. Petersburgh, is of Parisian manufacture.

The whole solicitude of Russia is bent upon extending its commercial relations, and of rendering its acquisitions under the Persian and Turkish treaties available. A Commission was to be formed in the Council of State, under the Presidency of the Minister of Finance. Factories are to be established at Erivan, and on divers points of the Armenian provinces acquired by Russia by treaty. The Government proposes to grant temporary franchises and immunities to merchants seconding its views. These countries are notoriously destitute of all industry and manufactures, which the Russian Government wishes to encourage, to civilise these more or less barbarous populations, by inspiring them with a taste for sedentary and usefully active life. Moreover a bank is to be formed at Moscow, to favor enterprises of commerce and of industry, in as far as the present guarantees of success, and without its being turned into a financial resource to Government. Branch banks in the south of Russia would powerfully assist in reviving industry and the commerce of these countries. Finally, a Commercial Code, formed on the model of the most commercial countries of both worlds, is to be enacted to meet the wants of the empire.

The Smyrna trade is resuming great activity. The Austrian squadron assembles in that port.

In Prussia the wine duties have just been reduced the one half, in consequence of the vintage having been very scanty.

Turkey.—According to accounts from Constantinople, to the 27th of November, the capital remained perfectly tranquil, notwithstanding the alleged embarrassments of the treasury, and the reported inability of the Government to pay the troops. It is said that several offers of loans on advantageous terms have been made to the Porte by different capitalists, which have been rejected, a fact something at variance with the alleged pecuniary embarrassments of the Porte. The splendid ball given on board the British frigate Blonde, which was attended by a great number of distinguished Turks, several of whom accommodated themselves without scruple to the European customs, has been followed by a grand ball and supper given at the hotel of the French legation, by Count Guilleminot on the 22nd of November. One of the Turks present, and one of the Sultan's aids-de-camp, danced a cotillion. The Sultan was about to give an entertainment to the European Ministers in the Grand hall of the Divan, in the arsenal.

Greece.—The *Journal des Debats* of Sunday, confirmed by the ministerial evening paper, states that Prince Leopold, of Saxe Cobourg, is to be the new Sovereign of Greece.

Spain.—The amnesty proclaimed by Ferdinand on the 21st ult., about which so much has been said, turns out to be a mere mockery; it only includes fourteen exiles, and the sentences of all these, excepting two, were just about to expire.

Turkish Justice.—A letter from Smyrna, after describing the barbarous execution of a poor Greek, says—"his trial will take place in a few days!"

State of Trade.—The demand for cloth in the Huddersfield market, on Tuesday, was quite as large as last week, and it is mentioned as a matter of rare occurrence, that the two last markets in December, when trade is generally extremely stagnant, have been amongst the best markets of the year. There is, however, no improvement in the fancy trade, and the severity of the weather during the last ten days has aggravated the distress of the unemployed poor deplorably; we are sorry to add, that no efficient relief has hitherto been afforded them. At Heckmondwike and Dewsbury, the carpet trade is much depressed, but we have authority for saying that the town and neighbourhood of Dewsbury have not been so well situated with respect to employment to the poor at this season for many years past as at the present time. This observation is not confined to the town of Dewsbury only, but extends to Barleys Carr, Hanging Heaton, Earls Heaton, and Dewsbury Moor. The manufacturers complain, with reason, of small profits, and this is a matter of wonder and regret, seeing that the demand for blankets and other manufactures in that neighborhood, through the whole of the autumn, and up to the present time, has been unusually large. Very little business was done either at Halifax or at Bradford on the last market days.

LIVERPOOL COTTON MARKET,

Wednesday, Jan. 6, 1830.

We have had about 1500 bales of Cotton sold to-day, viz: 40 Pernams 7 5-8d; 170 Maranhams at all prices, from 6¾d to 7 1-8d; 500 Maceios at 6½d, taken on speculation—a part of this lot sold at 6¼d ten days ago; 100 Orleans 6 2-3d, 7d, and 8d; a few hundred Boweds, old cottons, from 5 1-8d to 6 2-3d, some new 6¾d; with 90 common Surinam at 6¾d. The buyers think they will meet with what they want a little cheaper to-day.

LONDON CORN EXCHANGE,

Monday, Jan. 4, 1830.

The recent arrivals of all kinds of grain have been small, with a fair return of flour. This morning there is not much corn of any kind fresh up. The frost being gone, and the navigation of our river being re-opened, the corn trade here has been resumed, but the demand to-day for every article has not been extensive. Fine dry samples of wheat are scarce, and such have sold readily at former quotations; other kinds have met a slack demand, and rather lower prices have been taken, to make even limited sales. Fine malting barley has met a fair sale at no variation in value; but grinding and stained parcels are very dull. Beans, both old and new, are very heavy in sale, and are rather cheaper. Boiling peas are unaltered; gray peas sell heavily. Such oats as are stout and fine maintain their former value: but all other qualities may be reported rather lower. The flour trade has become heavy, at no alteration in prices.

LIVERPOOL CORN EXCHANGE,

Tuesday, Jan. 5, 1830.

The frost continued very severe up to Saturday night, and prevented shipments of grain from being made into the interior. From our own dealers we experienced, throughout the week, a fair retail demand for wheat, and superior parcels brought full prices. For oats the demand was more confined; but we heard of a few parcels being taken on speculation. On Sunday the frost began to disappear; and yesterday a change of wind brought in a considerable supply of grain from Ireland, which is not included in the import note below.

At this day's market there was a very slender attendance, particularly of country dealers. Fine wheat supported the prices of this day week, and in some instances superior qualities brought rather more money, but the business transacted was only to a moderate extent. For oats we continue our quotations of last week but the very choicest samples only brought those prices, and the sales made were on a very limited scale. In malting barley and malt there was no alteration in price, and but very little demand. Old beans supported previous rates, but new were 1s per quarter lower. There was a fair retail demand for flour, but oatmeal was dull sale at former currency.

HORTICULTURAL.

The subscriber, agent for Messrs. D. & C. Landreth of Philadelphia, will receive orders for all kinds of Plants, Bulbous Roots, Fruit Trees, &c. cultivated by them, which will be carefully packed, and delivered in Baltimore, in good order, *with special care as to kind and quality.* He also keeps constantly on hand the Messrs. Landreth's superior Garden Seeds, all put up by them, and each paper bearing their warranty, and delivered here at wholesale or retail at the Philadelphia prices. Also on hand, a good supply of Clover, Lucerne and Orchard Grass Seeds of fine quality; and will shortly be supplied with other Grass Seeds. Also in store 500 bushels of Northern Potatoes of different kinds, that can be recommended for seed. Likewise, a few Black and Golden Peas from Germany.

JONATHAN S. EASTMAN.
No. 36, West Pratt street,
Between Charles and Hanover streets.

J. E. keeps as usual, a constant supply of Agricultural Implements.

P. S. Agents for the above, where gentlemen can leave their orders.

Messrs. D. & C. Landreth, Philadelphia.
Lambert Reardon, Easton, Md.
Barr, Auchincloss, & Co. New York.
David J. Burr, Richmond, Va.
Randolph Webb, Raleigh, N. C.
J. C & C. Burckmyer, Charleston.
Dr.W. W. Anderson, Statesburg, S. C.
J. G. Herbert, Savannah, Geo.
Stephen Duncan, Esq. Natchez, Miss.

FOR SALE,

The "superb" stallion Tom Jefferson, sired by the celebrated imported Cleveland bay Exile "out of an Eagle blood mare," for further particulars see American Farmer, v. 7, p. 22, 90 and 104.

Also, the thorough bred *hunter* stallion Sky Lark, sired by Exile, out of a thorough bred Chance mare, raised by the late Isaac Duckett. Sky Lark is believed to be the *purest* hunter in this country—his gaits are fine, and on the road is surpassed but by few. See American Farmer, v. 9, p. 323.

If Tom Jefferson and Sky Lark are not sold, they will be let for the ensuing season, or stand where they may have the "best call." Apply to

PHILIP WALLIS, *Baltimore.*

February 17, 1830.

TO FARMERS.

An Englishman, just arrived in this country, is desirous of taking charge of some gentleman's farm; which business he followed in England. He comes well recommended. Employment is more his object than the amount of pay. Inquire at the office of the Farmer.

COVINGTON'S FARM FOR SALE.

I offer for sale a Tract of Land containing about 1000 acres, well known as the former residence of the late Gen. Leonard Covington, situate in Prince George's County, Maryland, on the Patuxent river, about 35 miles from the City of Washington, and within a day's run of Baltimore, by steam boat navigation. This valuable property contains a large proportion of level fertile land; possesses an abundance of timber, and is well adapted to the culture of tobacco and grain. It has upon it an apple orchard of thrifty young trees; several barns or tobacco houses, and a large brick dwelling.

The residence of the proprietor being very distant from this property, he is inclined to sell it at a *great sacrifice* for cash; or, if it would suit the purchaser better, he is willing to take slaves in exchange for it, at a fair valuation, or merchandise suitable for a South Western market, at Baltimore wholesale prices. The rent offered for the place the present year is equal to about six per cent. on the sum for which it is offered, and with little attention it might be leased at ten per cent. on the amount invested in the purchase.

Persons desirous of purchasing will of course examine the premises. Communications on this subject, post paid, addressed to the subscriber, at the City of Washington, will be attended to.

A Small Farm of about 200 acres, in the Forest of Prince George's, about 25 miles from Washington, and about six from Nottingham, is also for sale. It may be had at a very low price. B. L. C. WAILES.

February 6, 1830.

ALMANAC.

1830. February.	Sun. Rises.	Sun. Sets.	Length of days.	Moon. rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,...... 20	6 36	5 24	10 48	4 20
Sunday,........ 21	6 35	5 25	10 50	5 04
Monday,....... 22	6 33	5 27	10 54	5 55
Tuesday,...... 23	6 32	5 28	10 56	6 31
Wednesday,.. 24	6 31	5 29	10 58	sets.
Thursday,..... 25	6 29	5 31	11 02	8 20
Friday,......... 26	6 28	5 32	11 04	9 40

Moon—New Moon, 23d, 00h. 2m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There is a slight improvement in the flour market since our last. Howard street from wagons is selling at $4.12—from stores $4.25 a $4.37½. There is an improvement in the best quality of beef; and first rate will command our highest quotations. The harbour being yet closed, there is little business doing in other articles.

Tobacco.--Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12.00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. No receipts nor inspections this week.

Flour—best white wheat family, $5.50 *a* 6.00—super. Howard st. 4.25 *a* 4.37½—city mills, 4.00;—Susquehanna, ——. Corn Meal, bbl. —— *a* 2.25—Grain, best red wheat, .-- *a* .80; best white do. .85 *a* .90; ordinary to good, .70 *a* .75--Corn, old white, .38 *a* 39; yel. .40 *a*—; new .40 *a*—Rye, .46 *a* 48: Oats, .31 *a* .33; Beans, 90 *a* 1.00—Peas, .65 Clover seed, 5.00 *a* 5.25—Timothy, 2 *a* 2.50-Orchard Grass, 1.75 *a* 2—Herd's, —— *a* 1—Lucerne .37½ *a* — lb.—Barley, ——Flaxseed, 1.20 ———Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .21 *a* .21½; in bbls .22½ *a* 23—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22--three-quarter, .2? *a* .30--full do. .30 *a* .35, accord'g to qual.—Hemp, Russia ton, $215 *a* 220; Country, dew-rotted, 120 *a* 140—water rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl 5.50; do. trimmed, 6.50—North Carolina, No. 1, —, 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6.00 *a* ——— No. 2, 5.57 *a* ——No. 3, 3.75-—Bacon, hams, Balt. cured, .9 *a* .9½—Feathers, .30 *a* 31—Plaster Paris, cargo price per ton, 5.00 *a* 5.25; ground, 1.25 bbl.—Prime Beef on the hoof, .4.00 *a* 5.25—Pine Wood, by the vessel load, 2.75—Oak Wood, 3.75—Hickory, 5.50

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

On the Means of Recruiting Worn out Land.

Near Haddonfield, N. J. Feb. 1st, 1830.

Charles C. Goskell, Esq.

Dear Sir,—Your letter to me requesting information respecting the kind of manure, quantity, and expense, in restoring worn out land, has been received and now answered. My residence (as you know) six miles from Philadelphia in N. J., and half a mile from water carriage, governs me very much in the kinds of manure used; though I have tried most kinds by way of experiment, that cost on the landing as follows:

Street manure, 25 cartloads to the acre,	$16 50
Stable manure, 20 cartloads to the acre, cost, ...	17 50
Slaked ashes, 10 cartloads, containing 150 bushels, to the acre, . .	17 50
Castor beans, 100 bushels to the acre, cost at oil mill 12 cents, putting on vessel and delivering on landing 4½ cents, .	17 00
Oystershell lime, 50 bushels to the acre, shells on landing 4 cents, burning 3 cents, ...	3 50
Stone lime 30 bushels to the acre, cost on landing 24 cents per bushel, .	7 20

To the above cost is to be added the expense of transportation to the land, an average distance of one and a half miles, that adds an expense equal to the first cost of lime, where nearly all is saved; say a team hauls five loads a day, at two dollars, would add to the street manure ten dollars, stable manure 8, ashes 4, beans $1.20, the oystershell lime 80 cts., and stonelime 40 cents per acre; if we count the cost of spreading, it would continue to increase the difference, though not in so great a proportion. Most of my land being well adapted to the use of ashes and lime, I have long since abandoned the purchase of street and stable manure, the first cost being high, expense of hauling so great, and effect of such short duration, that a remuneration has been for ever lost sight of. Though it is much used and to great advantage on the sandy soil in the vicinity of Philadelphia, so wisely ordered for a kind of vegetable garden for that great city, to force truck, and enable them to receive the bounty. Ashes has been the principal manure used by me, owing to its productiveness, durability and facility with which it can be put upon the land. Within a few years past I have used stone and oystershell lime, and it promises much advantage upon land to which it is adapted; the latter has been principally applied to the roots of peach and apple trees during the winter and spring, (the dirt first removed and exposed to the frost) for destroying insects. From frost and rain a tea is produced too nauseous for the tender stomachs of those destructive worms, and for me has done more than all other remedies.

Earth requires food as well as man; and he who withholds it excludes himself from the legitimate products of his farm: earth was not created to be indolent more than man, neither can it labor without food; it is not to immediate products alone we should look, but to put our land into full heart for succeeding full crops, and bring into action the most productive powers of the earth to which too many are indifferent, and look not beyond old habits.

A man to purchase or own a farm at cost of 5,000 or 6,000 dollars, with five or six fields, and cultivate but one annually, with a view to the others becoming rich from *rest*, would be like employing five or six men, feed and pay them, work one annually to enable the others the better to perform their annual tour in succession; the interest money of the one, progressing without regard to sabbath or storm, is not less destructive than the hirelings above described, and has been the road to ruin of thousands. In the vicinity of Philadelphia, a farm, if fertile, should be divested of its native timber, and under entire *culture*, his *orchards as a forest*, and his fields a garden.

Most respectfully, your obd't servant,
Benjamin H. Cooper.

HEMP.

[In publishing the following report which a friend, a member of the Ohio Legislature, has been good enough to send us, we have only to remark on the item of transportation to the Baltimore market, that by the rail road it will be but $12 per ton, instead of $25; it is presumed the calculation at $25 to the New York market is founded on the known present cost by the Erie Canal—thus shewing that the Baltimore market holds out the double temptation—less than half the time, less than half the expense, saying nothing of the incalculable advantage of having the rail-road open all *the year*, whilst canals are half their time frozen up, and often breaking loose in summer.]

The Select Committee, of the Legislature of Ohio, to whom was referred that part of the Governor's Message which relates to the culture of Hemp, have had that subject under consideration, and respectfully report:—

That, in their opinion, the climate of Ohio is congenial, and the soil, in many parts, well adapted to the production of hemp. Your committee are, also, well assured that the encouragement and protection given to the American hemp growers by the existing tariff of the United States, are such as will insure success and profit to that class of our agriculturists. Believing that the want of correct information respecting the growth of this article, and preparing the same for market, is the reason that so few of our citizens have hitherto engaged in the business; and believing that a diffusion of information on the subject is the only encouragement which can, at this time, be given to that branch of agriculture by our state government, and, in fact, the only encouragement needed; your committee have computed from the documents referred to them, and from such information as they have been able to obtain from other sources, a treatise on the culture and preparation of hemp for market, which they herewith transmit: and respectfully recommend that a number of copies thereof be ordered to be printed, and distributed throughout the state. To this compilation, your committee have added an estimate of the average net proceeds of five acres of land cultivated in hemp and producing a ton, which is considered an average crop. Being aware that visionary and extravagant anticipations of the profit to be derived from the capital or labor employed in any particular branch of business, are calculated to do much injury, by inducing too many to engage therein, without a due regard to economy; your committee have endeavored, in making said estimate, to keep within the limits of what has been realized by some of our citizens from actual experiment.

On the Culture of Hemp.

Sec. 1. *On the climate most favorable to hemp.*—Hemp does not flourish in hot countries. Temperate climates are more favorable to it: and it succeeds very well in those that are colder; as Canada, the northeastern parts of the United States, &c. The climates of Kentucky, Indiana and Ohio, are, also, highly favorable to the culture of hemp.

Sec. 2. *On the soil most favorable for hemp.*—Hemp requires a soil that is soft, easy to cultivate, rather light, but very productive, and well tilled; and, after the ground is a little worn, well manured. Dry soils are not proper for it, unless on new, light lands. They produce dwarfish growth; of which the bark is too woody, which makes the threads hard and elastic: these are the great defects even for the coarsest manufactures. In wet seasons, it succeeds better in the dry soils we speak of, than in moister lands. These seasons, however, are rare; and hemp plantations, placed by the side of a river, creek or wet ditch, so that the water may be very near, without ever producing an inundation, are much esteemed. Any land, however, that will bring a good crop of flax, corn or potatoes, will bring a good crop of hemp.

Sec. 3. *On the proper manure for hemp plantations.*—All sorts of manure, that make the soil light, are proper for hemp. Hemp plantations, on worn soils, unless renewed by clover, must be manured every year; and it should be done before the winter tillage, that the manure may have time, during the winter, to rot, and mix thoroughly with the earth against the spring.

Sec. 4. *On the tillage of hemp plantations.*—The first and principal tillage is given to green sward, or stubble land, late in the fall, or in the early part of the winter, by well ploughing the ground in furrows, so as to expose it to the winter frosts, which tend very much to break up the earth. In the spring, the ground is prepared to receive the seed by similar ploughings, at intervals of fifteen or twenty days, until it becomes perfectly mellow.

Sec. 5. *On the time and manner of sowing the seed.*—In the course of the month of April, hemp seed is sown. Some persons sow earlier, and some later than this; and each are exposed to their peculiar dangers. Those who sow early have to apprehend the frosts of spring, which do great injury to the springing hemp; and those who sow late are in danger of droughts, that sometimes prevent the hemp from sprouting. The seed should be sown thick, otherwise the hemp becomes rank, the bark is too woody, and the fibres hard; which is a great defect. If, however, it be sown too thickly, the plants obstruct each other; which is another inconvenience. A medium, then, must be observed, which is easily hit by practice. The quantity of seed required for hemp partially varies according to the time of sowing, and the fertility of the soil. In Kentucky, at the rate of from a bushel and a peck to a bushel and a half of seed is required, per acre. And as the climate and soil of Kentucky are similar to those of Ohio, it follows, as a matter of course, that the quantity of seed required per acre in the two states is nearly the same. It must be remarked, that the hemp seed is one of the oily seeds that grow rancid in time, and then do not sprout. No seed should, therefore, be sown but of the last year's crop. When it is two years old, a large part never comes up; and when older, a still larger part. After the seed is sown, it must be buried with a common harrow: and care should be taken to protect the hemp, when coming up, from the ravages of birds. After it is out of danger of birds, very little, if any, attention need be paid to it, until it is fit to cut or pull. Should any accident happen the field, so as to render the hemp too thin to warrant a good crop, in order to make the best of it, were it only as respects the seed, it is prudent to weed the field, and prevent the plant from being choaked by a useless growth.

Sec. 6. *Time and manner of harvesting.*—The fitness of hemp for the knife must be determined by its appearance, and not by the length of time it has been growing, or the season of the year. The indications of a fitness for cutting or pulling, are a change in the color of the leaf, from a deep green to a yellow, and the rising upon the least agitation of a vegetable dust from the hemp.—The ripening of the crop is generally partial and unequal in different parts of the same field; and regard ought to be paid to that circumstance in cutting it, taking such portions of it first as give the strongest indications of ripeness. It is not necessary or proper to wait for a decided change of color in all the leaves, before the harvest commences; on the contrary, it is more advantageous to commence when the change is only partial, and as soon as the dust spoken of, begins to rise, or is produced by agitating the hemp with a stick or the hand. In Kentucky, the practice of cutting hemp has in a great measure superseded the old practice of pulling it by the roots, and is found to be generally preferable, being less laborious, and rendering the hemp better and easier to handle. The operation is performed with a knife, (commonly called a hemp hook,) made somewhat in the shape of a sickle, but heavier, and not so long, and having a smooth and sharp edge. Some prefer the cradle, where the evenness of the ground will admit of its use. The common scythe for cutting hemp, is also used to advantage. The scythe is pointed to, and swung in towards the field, leaving the standing hemp on the left of the mower as he proceeds forward, instead of throwing the scythe out from the field, as when mowing grass. A boy goes before the scythe and bears the top of the hemp in towards the field with a small pole, so that as the hemp is cut it falls from the pole and rests in a bearing position against the standing hemp. The mower is followed by a man whose business is to gather the hemp, and spread it on the ground. This method of cutting hemp will, in all probability, be found to be the most advantageous to the farmer, as very few of our farmers are without scythes, or ignorant of their use; and in addition to this, two men and a boy can go over more ground, and with greater ease in the same time, than can be gone over by the common process of pulling or cutting with a hemp hook. As the hemp is cut or pulled, it is spread upon the ground from which it is taken, and permitted to remain there until the leaves are well wilted, and will easily separate from the stalks. It is then gathered into sheaves, but not bound, and the leaves beaten off with a stick. If water rotting is intended, it is then bound into moderately small bundles, by means of bands at each end, is carried in general to a pond or pit of standing water, being there deposited bundle upon bundle in a direct and crossing manner, so as to form what is generally called a bed of hemp. When it has been piled to such a thickness as the depth of the water will admit, which some suppose can hardly be of too great a depth, though five or six feet are the most usual depths, the whole mass is loaded with pieces of heavy wood or with stone, until it is completely immersed.—When it has remained in this state long enough to be sufficiently rotted, it is taken out, unbound, and spread in the sun against a fence or a slope of the earth, or on a plane spot which is free from moisture, and occasionally turned. When the hemp is well dried, it is again tied up to be carried home, where it is kept in a dry place till it is broken out. In order to ascertain with ease and certainty when the hemp that is immersed in water, is sufficiently rotted, take a bundle of the same kind, and sink it by the side of the main body of hemp that is rotting. This bundle may be taken out and tried, after a few days, as often as once a day.—When the bark detaches itself from the wood, or a separation appears easy, the hemp is supposed to be rotted enough. Artificial pits for rotting hemp, may, in some situations, be made to advantage where they can be supplied by a small stream of water; and here it may be necessary to remark that very little difference is made, by hemp growers, between standing or moderately running waters; only that stagnant water makes softer hemp, but not so bright and saleable. If dew rotting is intended, the hemp is taken from the ground, and set up in stacks of from three to five feet in diameter at the ground, and tied closely together at the tops, so as to prevent them from falling: the middle of the stack is left hollow to give it air near the earth. It is then suffered to stand until perfectly dry, when it is separated and bound into small sheaves, and put into stacks or ricks, and secured by a covering of boards or straw, to secure it from getting wet in the interior of the stack. It can, however, be so stacked as to be secured from water, without any other covering than a thatch of hemp, but some skill, to be acquired only by practice, is necessary to do it well. It remains in the stack until the season of rotting arrives, which is from September to February. It is then taken down and spread out, (on grass if to be had,) as equally as possible, and exposed to the weather, until it is found to be ready for the brake. Care must be taken to take the hemp up as soon as it is sufficiently rotted, or loss will be sustained. If, however, it should be found at any time to be injured by too long exposure, it should not be thrown away, but again stacked, and brought to the brake the succeeding year, when it will be found to have regained its strength, if not absolutely rotted before taken up. When ready for the brake, it is taken from the ground, and stacked in small stacks, as in the first instance after cutting, and then broke out on brakes made on the plan of the common flax brake, but much larger, say from five to six feet in length, having the slats much deeper and wider apart, and wider in proportion at the head of the brake, than the flax brake. With such a brake, a good hand will brake one hundred pounds in a day, in February; and some hands will brake more. Where the culture of hemp is carried on to a great extent, machines for braking, are used to advantage; but where the hemp growing is limited, the expense of the machine is too great to justify its use. Hemp, either water or dew rotted, may if necessary, previous to braking, be dried by fire similar to flax. This method of fire drying, is reduced to practice, within a few miles of Columbus, in the following manner: A kiln is introduced into a small out-house, which kiln is made either of brick or stone, and plastered over in such a manner, that no sparks are permitted to escape within the house. The fuel that supplies the kiln, is put in from the outside of the house, and the smoke passing through the kiln is conveyed off by means of a chimney on the opposite side of the same. The hemp designed to be broken, is placed on the scaffolds at a reasonable distance above the kiln, and there permitted to remain until perfectly dried. It is then taken out to some suitable place and broken. If the fibre, by this process of drying, should become too brash to justify the immediate application of the brake, it will, by the exposure to the air, in a short time, be sufficiently elastic without affecting the stem. The advantages of this method of drying hemp are apparent: first, from the facility and speed of separating the fibre from the stem: secondly, from the fact that any kind of weather, either wet or dry, is equally suitable for braking. Hands, practising this plan of drying, brake with ease the quantity above spoken of, per day.

Sec. 7. Hemp designed for the seed, to produce the best crops, should be planted in drills, three or four feet apart, so as to give an opportunity of running a plough, or corn cultivator, between the rows. The plants should stand about eight inches apart. It is, in ordinary seasons, considered the best time to plant, about the time of corn planting. The hemp should be kept free from grass and weeds, in the same manner as corn; although, it will not require as much hoeing, unless the ground should be very foul. As to the time of harvesting the hemp, planted for the seed, no precise rule can be given; it must depend much upon the judgment. The seed comes to maturity, very unequally—so that you will find the seed ripe on the lower branches, and the lower part of each branch, when the top may be in the blow. It should be cut at that time, which will secure the greatest quantity of ripe seed. As a general rule, however, it should not stand so long to ripen the latest, that the earliest will begin to fall; for if it be suffered to stand, until all, or the greatest portion of the seed is ripened, or turned a dark brown, you will lose more in gathering, than is lost by the light and imperfect seed, when cut earlier. It should be carefully cut with a sickle or hemp hook, made for the purpose. Great care should be taken, not to shell the seed in cutting and securing it. It will well pay for the additional labor, to give it a light threshing, when it is first cut and before it is bound: For this purpose, a canvass of about three or four yards square, should be taken into the field, and the hemp, within a convenient distance, as it is cut, should be carried to it, and lightly beat with a stick or small pole, so as to dislodge all the loose seed, which would be exposed to shell and waste in handling or moving. It may then be bound in small bundles of eight or nine inches in diameter, and set up in stooks to dry. At this time, it would be advisable to move the hemp, where it was designed to thresh and secure it, as it could then be done with less waste, than after it had become dried. When it has stood in the stook a sufficient time to cure and perfect the unripened seed, it should be again threshed or beat out, either on a canvass, as before, or on a bed upon the ground; or it may be threshed on the barn floor; but as it is a very soft seed, it is exposed to much injury upon the floor.—It will be found very little labor to thresh out the seed; and the greatest care is necessary to prevent it from shelling and waste in cutting and securing it; hence, the plan of double threshing, is thought on the whole, to be the more economical. Clean your seed with a common fanning mill, taking care to give the proper speed, and to gauge every part, to suit the weight of the seed. The seed should not be put together in large quantities, but requires to be spread and exposed to the air, until it is thoroughly dried, else it will heat and spoil If your hemp is sown broadcast, and you design to save the seed and lint, cut it when about half the seeds have began to change their color; bind it in small bundles, and thresh it in several fair days, without breaking the bundles, and put the hemp under cover, to completely cure; and when thoroughly cured, you may thresh again, breaking the bands as other grain. In all cases where you wish to save the lint, you will put the stem under cover as soon as you can, to prevent it from being stained by the weather.

Water Rotting.

Preference is given to water rotting, in all cases where it can be done. The hemp is more durable for all the purposes to which it is applied; is easier bleached; and will yield a greater quantity of fibre from a given quantity of the hemp; and water rotted American hemp, will compete with the best Rusian hemp.

A calculation of the average cost of a ton of hemp; the quantity of land required, on which to grow the same; together with an estimate of the net proceeds per acre:

Five acres of land at two dollars per acre,	$10 00
Ten days work with a team ploughing, &c, ...	10 00
Seven and a half bushels of seed, at one dollar per bushel, . . .	7 50
Fifteen days cutting, at 50 cents per day,	7 50
Seven and a half days taking up, .	3 75
Two days hauling to rot, &c., with two hands, ...	3 00
Fifteen days putting in and taking out of the water, spreading, &c. . .	7 50
Five days taking up, . .	2 50
Thirty days breaking and scutching .	15 00
Boarding hands, say . .	15 00
Total amount of expense per ton, .	$81 75

Add to this, as an average cost of transportation to N. York or Baltimore,	25 00
Making the actual cost of a ton of hemp, delivered as above, . .	106 75
Suppose the average value of a ton of good water rotted hemp, . .	200 00
From which, take the cost of growing, carriage, freight, &c. . .	106 75
Leaving the net proceeds of five acres of hemp, at . . .	$93 25

Being something less than 19 dollars per acre. Dew rotted hemp is not worth, on an average, to exceed three-fourths as much, as water rotted.

(From the New England Farmer.)

DISEASE IN SHEEP.

Mr. Editor,—I observe in your paper of the 23d January, a communication from a brother shepherd, with the initials of A. L. H. on the subject of a disorder which affects his flock, the cause of which he is unable to ascertain. I can most sincerely sympathise with him in his misfortunes, and wish it was in my power to assign the cause with *certainty*. Were it not for the circumstance, as mentioned by him, that the sheep have died, when away from the barn, there would be little doubt in my mind, that the malady is occasioned by feeding altogether too much on dry food, hay. Unless his farm produces some plant poisonous to the animal, I suspect it is dry fodder that has produced the mischief, and that when once disordered, if the sheep live through the winter, the effect is not recovered from, and they continue to droop and die through the season of grass feed, as has been the case in other instances.

It is very desirable, if, as he fears, his sheep die this winter, that the viscera of the abdomen be examined by some person capable of marking the difference, between a healthy and disordered state of the contents of the belly. My conjecture being right he will find the third stomach, or manifolds, the seat of difficulty. Having more than *fifty* sheep to die last winter with symptoms not *very* dissimilar to those described by him, I opened more than a dozen, and the uniform appearances in their stomach, were some slight degree of inflammation in the coats, which were also, as well as the folds within, in a dry and *hardened* state; in most instances, so much so, that secretion had entirely ceased. The food, with which the stomach was filled, was also so dry, as to be taken out with the fingers, and strewed about like moist saw dust. The malady which affected my sheep, was very general through the State of Maine, and some other parts of New England. There is no doubt with me, from facts collected, and my observations, that the disorder was occasioned by the quality of the hay, grown and cut in a very wet season. It afforded but little nutriment, and perhaps possessed positively injurious qualities.

Leaving the question, what is the cause of the disorder in the flock of A. L. H. undetermined until he has an opportunity to examine his dead sheep, I will venture to say that *the principal cause of the death of sheep in winter is owing to dry food.* It is well known to almost every sheep owner, that he loses but few sheep by grass, compared with those which die in winter. M. *Daubenton*, a celebrated French agriculturist, is sanguine, that the mortality which more or less prevails among sheep in winter in France, where they are not under the necessity of feeding half so long perhaps, as we do here, is caused by dry food. He examined a great number after death, and describes appearances of the third stomach as similar to those above stated.

In order to insure the health of a flock in winter, they should be fed more or less with roots, ruta baga, sugar beet, or mangel wurtzel. They can be grown as cheap as hay, and when freely given to animals, keep the digestive organs in as healthy a state as grass. My ruta baga, last year cost me 4 1-10 cents per bushel in the cellar; although the season was a bad one for their growth, and I got not more than two thirds of a crop. I do not know, however, that they can be cultivated so cheap elsewhere, as in this "cold climate and sterile soil," as a late Honorable Senator was pleased to call the climate and soil of his state on the floor of Congress. For I saw it published not long since, that a farmer in New England had received a gratuity from an agricultural society, for a crop which cost him twelve or fourteen cents the bushel. So far as one winter's experience enables me to judge, I am satisfied that fifty bushels of roots and one ton of hay, are of as much value for feeding sheep as two tons of hay.

I conclude with the request, that Mr. A. L. H. will have his sheep, which may die, examined, the appearances carefully noted, and made public through the columns of your New England Farmer. B.

Anson, Somerset Co. Me. Feb. 1. 1830.

FLORIDA AND LOUISIANA SUGAR.

Greenwich, 31*st Jan.* 1830.

My Dear Sir,—I only yesterday received the samples of sugar made by my brother at New Orleans by his steam process, and now forward them to you together with a prospectus that he sent me, and which may rather be considered as a report of the results of his operation made by several respectable planters who witnessed his experiment, and have declared themselves perfectly satisfied as to quality and quantity of his produce. If you can say any thing in its favor you will render him a service and very much oblige me.

I have marked on the paper, containing the samples, their different kinds; and am of opinion that this improvement having rendered the sugars so dry as to leave none of what is technically termed foot, at the bottom of the casks, opens a wide and expansive field for American industry to avail itself of a fair competition with the colonial sugars, by entering European markets when the quantity made in the sugar producing states shall have exceeded the demand of the country. It has now become equal, and from its dryness and grain, most probably superior to any Moscovado sugar, for the refining plan, added to the circumstance of its being landed either here or in Europe, of the same weight or at the same period of its being shipped from the plantation; and thus saving to the planters an actual loss of all the molasses, that drains out in transmission, besides the waste the purchaser experiences after it comes into his hands.

No. 1 is sugar made on Mrs. Holliday's estate in the usual way; No. 2 is that made by my brother's process on the same estate from the same juice and yielding two hhds. in 10 more than the other; No. 3 is the sugar made from the common New Orleans molasses.

The process of sugar making used by Mr. Archibald, and for which he proposes to take out a patent is thus described:

1st. To employ a new method to clarify and settle the cane juice.

2d. To boil by steam.

3d. To make sugar from molasses.

The advantages of his process are:

1st. The perfect purification of the cane juice from all filth; the correction of all acidity; the separation of the mucilaginous parts of the cane, so that the cane juice can be reduced to sugar with little or no skimming either before or after the boiling process.

2d. Economy in the use of fuel; economy in the cost, setting and renewal of boilers; economy in the labour in tending the boiling and in potting the sugar.

3d. Rapidity in the operation.

4th. The superior quality of the sugar; its more perfect granulation, and the impossibility of burning or converting it into molasses by too ardent a heat. The consequent production of a greater proportion of sugar, and a smaller one of molasses.

5th. The power of making sugar of a superior quality, from the first molasses, and the greater value of the molasses after the second process.

6th. The perfect draining of the sugar in ten or fifteen days, so as to be put up in tight hogsheads or boxes, that suffer no leakage, and are not liable to become in bad order. [*Balt. Chronicle.*

ON THE IMPORTATION OF WOOL.

A memorial has been presented to Congress, by *Jacob Barker*, from which we extract the following paragraph, as of interest to farmers and manufacturers: "That the duty on coarse wool is equivalent, or nearly so, to a total prohibition of the importation of that article, that it is produced in great abundance in South America, and on the borders of the Black Sea, and that hemp is a staple article of importation from Russia: Therefore,—your memorialist begs leave respectfully to solicit of your honorable body the repeal of the duty on all coarse wool, the original cost of which shall not exceed ten cents per pound, and that a bounty, equivalent to the duty paid on the importation of hemp, be allowed on the exportation of cordage manufactured in the United States. The cloth manufactured from coarse wool is consumed exclusively by the laboring part of the community, and therefore should not, in the opinion of your memorialist, be taxed, except in case of great necessity; and the wool being a raw material of little cost and great consumption, its manufacture gives employment to a vast number of persons. Our farmers do not produce such wool; nor could they do so advantageously, even if the sheep yielding it were given to them; as their support would cost more than their whole fleeces. The manufacturing interest is also injured by the oppressive duty on this article, as it enables Great-Britain to supply a great part of the coarse cloth consumed in the United States, as well as the South American market, which we could supply to advantage but for this duty.

The transportation of the cloths, and the importation of the wool, would greatly promote the navigation of the country, as would the exportation of cordage, if a bounty were allowed thereon; and the consumption of the cordage in the Brazils, Chili, Peru, Colombia, Mexico, and other places which have been thrown open by the changes in the government of those countries, and which are now supplied directly from Europe, would give employment to our rope makers to a great extent, whose business is as much oppressed by the tariff as that of the ship owners. It would also greatly promote the interests of the hemp growers, and thereby encourage its cultivation. Your memorialist is at a loss to perceive any good, or even plausible reason, why a bounty should be allowed on the exportation of fish and refined sugars, and denied on the exportation of manufactured hemp: and he, therefore, respectfully requests your honorable body to take the subject into consideration, and he is persuaded that they will not refuse to extend their fostering hand to the best interests of the nation by granting the prayer of this memorial. It would benefit all, and injure no one branch of national industry."

He is richest who is contented with least—for content is the wealth of a nation.

WEIGHT OF THE DEVON COW.

J. S Skinner, Esq.

Having been desired to furnish for publication a description of the Devon cow exhibited last week in the city, and believing her to be the first *full blood* ever brought to our shambles, I have less reluctance in complying therewith.

This cow was bred by me, her sire and dam were imported from England, accompanied with usual certificates of blood and pedigree, she was three and a half years old, had a calf fifteen months since, and ceased breeding; but continued to give milk until the end of November last, when one of our victuallers advised my feeding her for market, with which I reluctantly complied, as she was very beautiful and universally admired. Her food for the last ten weeks has been chopped corn and ruta baga turnips, with hay from orchard grass, previous to which, she had never tasted grain of any description, and I never knew an animal become fat so rapidly; for her good qualities as beef I refer to Mr. Rusk's statement below.

Yours, respectfully,
Henay Thompson.

Baltimore, 23d. Feb. 1830.

I hereby certify, that last week I slaughtered a Devon cow raised and fed by Mr. Henry Thompson, which turned out far beyond expectation when exhibited on foot last week at market; the general impression then was that she would go a little over six hundred pounds, but to our great surprise the four quarters actually weighed seven hundred and sixty pounds, and she cut up beautifully, being very fat, *very small boned*, with lighter coarse pieces and less offal than any beast I ever slaughtered; and it is my opinion, as also that of my brother victuallers, that this breed is superior to any other we have ever seen for beef.

The whole weight of this cow was as follows, viz.

Four quarters, net, . .	760 lbs.
Rough tallow, ...	140
Hide, ...	80
Head and tongue, . . .	45
	1025 lbs.

Feb. 23d. John Rusk.

HORTICULTURE.

(From Andrew Parmentier's Essay on the Cultivation of the Vine.)

Read at the Meeting of the Horticultural Society of New York.

This small work, with which I have been occupied for some time, having been delayed in its publication for some answers to inquiries made in Europe about some particular facts, I have thought that the public ought to be acquainted with the use of plaster of paris on the vine. I had besides promised if I was not prepared for the publication of this work, to publish it in the American Farmer, New England Farmer, and New York Farmer, having asked many gentlemen who have honoured me with their confidence not to prune their vines until spring, A. P.

ON THE BLEEDING OF THE VINE.

This arises from the aqueous sap coming out drop by drop, from the section made in pruning the vine.

When the bleeding of the vine takes place on a bud, it is generally spoiled; it is to prevent this that the cut should be made in an upward direction, beginning by the part opposite to the bud, as may be seen in the printed directions for vines, which accompany any vines sent from my establishment, and which will be also figured in the *essay on the cultivation of the vine.*

In all the publications and treatises on the cultivation of the vine in France, and in other countries, there is no mention made of any remedy or preventive against the bleeding of the vines after pruning in the spring. It is the cause very often, of the cultivators being obliged to prune in the fall, which is very much against the true method of cultivation of the vine. Every cultivator must have observed how many times after the pruning in the fall very fine fruit buds, uniting both ripening wood and strength, are destroyed in the spring by the frost, the wood being more apt to be frozen after pruning than it would have been if the pruning were performed after the more heavy frosts are over. (The covering of the vine will not always save those fine buds.) It is only in very mild countries that the vine is pruned in the fall, and this is only done on the red or black grape, these generally being more hardy to support those prunings than the white grape.

Having been much occupied in endeavouring to prevent this loss of sap, I tried first sawing the branches of the vine; this really obviates the bleeding, because by the operation of sawing the sap vessels become obstructed; the contrary happens when the pruning is done by a sharp pruning knife, as it is almost always done for the sake of greater neatness in the work. I was not satisfied with this manner of operation, and I was led to the following discovery, by analogy, from having remembered, that, to prevent the bleeding of the sap from cucumbers after trimming, my old gardener in Europe used powdered plaster; I followed this idea, and the result was completely successful. In pruning the vine in March, (a little sooner in more favourable parts,) I rub a little of the powdered plaster of paris, (it is probable that Nova Scotia plaster would answer the same purpose, but I have not tried it,) on the part of the vine which is cut, and this entirely obstructs the vessels, because there is a very little moisture when the cut is made, and when the sap begins to flow, it finds the sap vessels so well stopped up that none of the fluid makes its appearance on the surface of the section, and if the pruning (which I have tried) was done even at the beginning of May, the immediate and sufficient application of powdered plaster would stop the bleeding of the grape.

INTERNAL IMPROVEMENT.

THE ROANOKE TRADE.

The following extracts of a letter from a gentleman at *Weldon*, to a highly respectable commercial house in this place, are politely handed us for publication. The intimations which they convey of an improving disposition on the part of our neighbours on the *Roanoke* and *Staunton* rivers, to make *Norfolk* the market for their valuable products, can but be gratifying to our people generally, especially that a considerable quantity of *Tobacco* will, in a few weeks, be on its way to Weldon from the upper country, destined (as we infer) for this market.

We are much gratified in being able to answer affirmatively the inquiry of the writer, as to the existence of a *Tobacco Stemmery* in Norfolk, the want of which, he considers would render this a bad market for inferior Tobacco. It is more than eight years since Col. James R. Nimmo, one of our most worthy citizens, established a Stemmery on Cumberland, two doors from Charlotte street, upon a very respectable scale. It is still operative, and can be extended commensurately with any demand for its services, which may grow out of our new relations of business with the Roanoke. Several of our merchants are acquainted with its operations, and can bear testimony to the fidelity with which it has been conducted.

As to the disparity between the freight of hhds. of *Tobacco* coming to, and hhds. of *Sugar* going from our place, in the transportation line, and the probable *reduction* of the present rates as soon as the facility of the new steam boat *N. Carolina* is felt in their operations, we are unprepared to speak. This inquiry will doubtless meet a satisfactory response from the *Directors* of the Company. But in reference to the new steam boat *N. Carolina*, we have the pleasure to state, that a trial of her machinery was made yesterday, when we saw her move down our harbour in beautiful style, fully realizing by her speed and light draft of water, the most anxious wishes of her constructors, and the company. She is nearly completed, and a very short time will find her where her services are most required.

We regard as a favourable evidence of the desire of our Roanoke friends to draw closer the relations of business with us, the announcement in this letter, that a gentleman from the montaine country of the Roanoke (the Staunton Branch) is now here, who has just passed through the whole line of communication, for the purpose of examining the navigation, and ascertaining if it can be advantageously used in the transportation of the produce of his section of country to a good market. We doubt not his investigations will be satisfactory.

[*Norfolk Beacon.*

Weldon, (N. C.) January 12th, 1830.

"The last fall was very unfavorable for the management of Tobacco, but think it will be coming down considerably in a few weeks. We received some hhds. of Tobacco the other day, with instructions to send it by the wagons to Petersburgh, if we thought it best; we have declined sending it, and should like to be informed whether there are any stemming establishments in Norfolk, as the people above have generally taken up the idea that Norfolk will be a bad market for inferior Tobacco, for the want of stemmeries. Should like also to be informed as early as possible, whether it is likely any *reducion in freights* from this to Norfolk may be looked for when the new steam boat commences her run? Such a thing is *generally anticipated* by the most of persons intending to send their produce this way. The disproportion of freight to and from this place has produced a *considerable clamour* with several persons favorable to the success of the Roanoke; they are inquiring why it is, they only charge $2.25 freight for a hhd. of Sugar, and $4 for a hhd. of Tobacco; they say the people of Norfolk are holding out inducements for them to deal with them, but none to carry their produce to them. We send you a small package containing a sample of Tobacco from the gentleman to whom that above spoken of belongs.

"This will be handed to you by a gentleman from under the mountains, say from 70 to 30 miles higher up the river than any boat has ever heretofore atempted to descend with a load;* the object of his trip appears to be, an experiment to examine the navigation, and see if this route can be used to any advantage by his section of country."

The Legislature of Tennessee have laid the foundation of a system of *Internal Improvement.* They have on that subject constituted a board of six commissioners, two out of each division of the State—the Governor ex-officio President of the board. They have appropriated $150,000, viz: $60,000 to East Tennesse, $0,000 to the Middle, and $30,000 to the Western District. A topographical engineer is to be employed by the Board to make the necessary surveys of the rivers, and report the results to the Legislature.

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* The *Staunton Branch.*

ESSAY ON RAIL-ROADS.

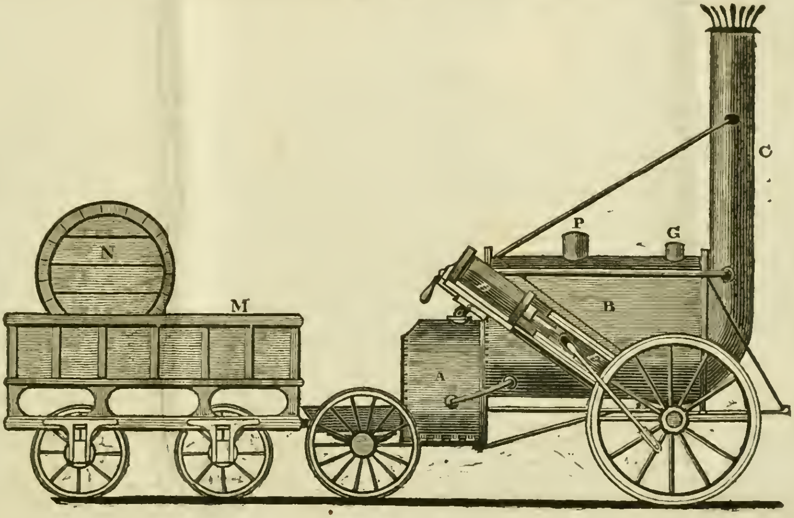
(Continued from p. 390.)

Second Engine.—The Rocket.

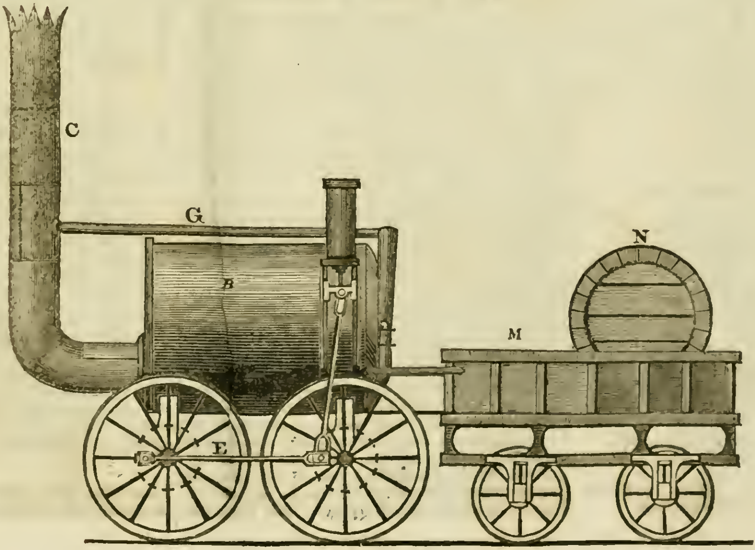
Annexed is an external elevation of this engine and its tender; but on a scale one-half less than our engraving of "The Novelty." The furnace A is two feet wide by three feet high; the boiler B is six feet long and three feet in diameter. The furnace, like that of "The Novelty," has an external casing, between which and the fire-plate there is a space of three inches filled with water, and communicating with the boiler. The heated air from the furnace is circulated through the boiler by means of twenty-five copper pipes of three inches each in diameter, which have their termination in the tall chimney, C. F G are safety valves; H H the steam eduction pipe. D, one of two steam cylinders which have an angular inclination towards the wheels, and embrace like two arms the boiler between them. E, one of the connecting rods which give motion to the wheels; *a*, the slide of the piston of the cylinder seen in the engraving; and o, one of the two escape-pipes. M, is the part of the tender appropriated to the carriage of fuel; N the water cask.

The performances of this engine indicate a very abundant and well-sustained production of steam; but the extent of surface which it has been found necessary to expose to the heat, in order to obtain that effect, the great size of all the parts, and the quantity of fuel required—are faults which even a still more copious generation of steam would scarcely compensate. It is not by means of its heavy weight alone that such an engine would operate injuriously on the rails. The chimney from its great height—a height necessary to obtain that draught which in "The Novelty" is produced by means of the air-forcing aparatus—gives a swaying motion to the engine from side to side; and the rails have thus a lateral as well as a longitudinal force applied to jerk them out of their places.

SECOND ENGINE.—THE ROCKET. BY MR. STEPHENSON.

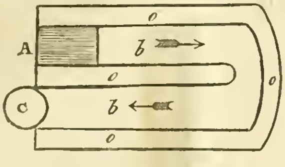


THIRD ENGINE.—THE SANS PAREIL.



3. THE SANS PAREIL.—*Mr. Ackworth, of Darlington.*

The preceding engraving presents an external view of this engine and its tender, on the same scale as the "Rocket," namely, a quarter of an inch to a foot. It exhibits in its general appearance—particularly in its large dimensions—a near resemblance to Mr. Stephenson's engine; but is much more compactly arranged, and on account of this compactness, travels with much greater steadiness. The furnace and boiler are not placed head-and-tail-wise, as in "The Rocket," but form together the main body (B) of the engine, being constructed in the manner represented in the following diagram:—



A is the furnace, *bb* the flue or tube through which the heated air passes in the direction marked by the arrows, to the chimney C. The boiler (*oooo*) surrounds the furnace and flue. The working cylinder D, and connecting-rod E, &c., are similar to those of "The Rocket," with the exception of being vertical instead of horizontal. The waste steam passes into an external pipe G, which has an ascending direction given to it towards the chimney C; so that whatever portion of it is there condensed may fall back through the vertical branch-pipe at its lower extremity into the feed-pumps (one of which is only represented in the drawing.)

The mode of generating the steam adopted in this engine is the same which Trevethick introduced as far back as 1804, and possesses all the merit which has been generally conceded to that plan, without exhibiting any effort to obviate the objections that have been so generally made to it. The furnace and boiler are of simple construction, and of unquestionable efficiency; but their great size, and the large supply of fuel and water they require, render them but ill-adapted to the purposes of a locomotive engine.

The comparative speed of the three engines, as verified by the recent experiments, stands as follows:—

MILES PER HOUR.

	With a load equivalent to three times the weight of the engine.	With a carriage and Passengers.
The Sans Pareil	12¼	—
The Rocket	12½	24
The Novelty	20¾	32

(From the Baltimore Gazette of December 30, 1829.)

We have seen a letter from a most respectable house in Liverpool, under date of the 23d ult. to another in this city, which communicates the particulars of an experiment made on the preceding day, on the Liverpool Rail-road, with wagons of burden, on the principle of our ingenious countryman, Mr. Winans' invention. The result is detailed in the following extract:

"A trial was yesterday made of Mr. Winans' wagons upon the Rail-road, drawn by "The Novelty" Steam Engine, (Braithwaite and Erickson's) which resulted as follows:—

Weight of Engine	3	tons
" " Load	27	"
" " Wagons	5	"
Total	35	tons.

This load was drawn 13 miles per hour.

At the same time Mr. Stephenson's improved wagons were tried, and the result, at the same speed, was as follows:—

Weight of Engine	3	tons.
" " Load	16	"
" " Wagons	7	"
Total	26	tons.

From this experiment, it appears that as regards the load transported; the effect was as 16 to 27 tons, or about 68 per cent. in favor of Winans' Car.

The Stock of the Liverpool and Manchester Rail-way is now £180 for £90 paid."

LADIES' DEPARTMENT.

(From the Journal of Health.)

SNUFF-TAKING.

We have already pointed out, in the third number of this work, the more prominent evils attending the use of tobacco, by chewing, smoking, and snuffing. Our purpose on the present occasion, is to place in contrasted pictures,—first, the happy effects of an abandonment of the last mentioned of these practices, in the words of the reformer himself; and then the miseries from its indulgence. We derive the following extract, by permission, from a respected friend to whom it was addressed in a letter, and who is himself an instance of amended health and pleasanter feelings, by leaving off, at first chewing, and afterwards smoking, which last he had taken to as a substitute for the former:—

"I would return you my thanks for urging me so successfully to abandon the taking of snuff. Although I knew every truth you stated, and had weighed its detrimental effects on my health and personal cleanliness: yet I viewed myself as doomed to suffer all the bad consequences without any prospect of conquering its baleful influence; as I had made frequent attempts, but always failed. But I am happy to say, from the afternoon we had the long conversation on the subject. I have not taken one pinch of snuff, or used tobacco in any way. The consequence is, I enjoy better health than I have had for many years; I am sure I have increased in weight 12 or 14 pounds. I have no violent nervous affections since; and my appetite scarcely ever better. I have not had a single attack, since the morning I quitted the snuff, of unpleasant pains running out to the ends of my finger and toes; and which I cannot represent more aptly, than the rolling of agitated waters against the shore, and as often receding and returning. These affections I am well aware, are dyspeptic; and those afflicted with the disease well know what I mean. In short I feel gratitude to God for strength to overcome so pernicious a habit, and which, I trust, I shall never return to again."

Few persons, even on the score of economy, can afford to lose one of their senses; and yet the habitual snuff-taker consents to have greatly impaired, if not destroyed the senses of smell and taste; for both, together with the voice suffer by this vile practice—as repugnant to true fashion and politeness, as it is injurious to health. At first had recourse to, by some, for the relief of headache, or disordered eyes—snuff, when long continued, brings on those very evils it was intended to remove. Ever when it does not escape into the throat and pass thence into the stomach, its repeated application to the sentient surface constituting the sense of smell, affects by sympathy the stomach, and gives rise to indigestion and a host of nervous disorders, such as tremors, palsy, and even epilepsy, and sudden death. With an enfeebled state of the brain and nervous system come loss of memory, and great inequalities of temper and manner. The pernicious effects of the tobacco, are not unfrequently heightened by the addition of other noxious or poisonous ingredients, mixed with the powder, in order to add to the weight of the snuff, or to make it more stimulating. To accomplish the first intention, salt or red lead, which last also improves its color; and for the second purpose, powdered glass, sal ammoniac, cayenne pepper, and even more offensive articles, are added.

No person can be ignorant, that snuff possesses all the powers of tobacco.—The celebrated Santeuil, experienced vomiting and horrible pains, amidst which he expired, in conseqnence of having drunk a glass of wine into which had been put some Spanish snuff. A woman applied to three children afflicted with scald head, a liniment, consisting of powdered tobacco and butter, soon after which, they experienced vertigo, violent vomiting and fainting.

One of the most virulent and deadly poisons, the oil of tobacco, is obtained by distilling the leaves of the plant. An ingenious medical gentleman has suggested as very probable the idea that the "*cursed hebenon*," which he presumes was originally written *henebon*, and by which Shakspeare describes the king of Denmark to have been poisoned, was no other than the essential oil of tobacco.

It is in vain that the advocates of snuff-taking allege that they become accustomed to its use, and do not experience those unpleasant symptoms, such as giddiness, and sickness of the stomach, and great languor, and prostration, under which beginners at times suffer. These old snuffers, when ruffled or disturbed from any cause, consume a much larger quantity than usual of their powder, and suffer accordingly. The laws of habit are to them no security, since they can give no pledge of their not transgressing what they would call their daily limits.

A reform of this, like of all evil habits, whether of smoking, chewing, drinking, and other vicious indulgences, to be efficacious, must be entire, and complete, from the very moment when the person is convinced, either by his fears or his reason, of its pernicious tendency and operation. A single day, aye, an hour spent with a friend, or a few old boon companions, will often render nugatory a partial reform of months' duration. Abstinence, resolute and entire abstinence, is the only means of safety and immunity. The chain must be entirely broken—so long as the links are entire, no matter how attenuated, they are ready at any moment to be coiled round and round us, until we are pinioned and shackled beyond the possibility of escape, or hope of freedom.

FEMALE SURGEONS.

Dr. Beddoes, in reprehending the absurd and dangerous practice of individuals, ignorant of the first principles of the healing art, pressing their advice and prescriptions upon the sick, has the following very pertinent remarks:

"Though the active party is generally a female, and females are entitled to more than civility, public opinion cannot be too severe on this subject. I wonder, indeed, that decorum, of which the sex is so properly studious, does not interpose in favour of the invalids. Were a lady, educated and endowed as ladies usually are, to produce from her pocket a *case of Surgeon's instruments*, every body would feel confounded, and nobody, I presume, would submit to the hands of the operator—be they ever so fair, and and her probes and lancets ever so bright. I, however, defy any one to assign a good reason for supposing such a lady better qualified to wield the equally dangerous tools of the physician."

Love is a sweet tyranny, because the lover endureth his torments willingly

MISCELLANEOUS.

(From the Philadelphia Centinel.)

A MORNING AT A FARM HOUSE.

The sun arose—and to the hill
The farmer goes to rake;
The ducks and geese go forth, to fill
The bosom of the lake.

The housewife and the dairy maid,
The children, girl and boy
Are in the field, with hoe and spade
Their morning hours t' employ.

The cockerel and his cackling wives,
The turkeys with their young,
As pleasantly pass through their lives
As if in union strung.

The farmer's dog beside the door
In sweetest slumber lay;
For he had had no *sleep* before,
He *watched* the night away.

His swine were kept in nicest trim,
Which with his horse and cows,
Had been supplied with food by him
Before he left the house.

His barns were tight, his fences whole
To keep marauding hands
From passing sacrilegiously
Through his well managed lands.

And when the hour of breakfast came,
There was no vacant place,
The maid, as well as farmer came,
With happy, smiling face.

This was the morn, and through the day
The same good order reigned,
And for reward, I needs must say,
They wealth and honor gained.

And when I left this pleasant spot
I left my heart behind:—
'Tis only in the farmers' cot
That happiness we find. C. M. R.

In the early times of this State, as we learn from Lewis's History of Lynn, a person was deputed to wake the sleepers in church. He bore a long wand. On one end was a fox's tail with which he gently touched the faces of the drowsy fair; but on the other end was a ball with which he bestowed on the sconces of the snoring men, a startling rap.

[*Massachusetts paper.*

A gentleman in New Haven has succeeded in domesticating a large number of wild pigeons.—They deposit but one egg, and the male and female sit by turns, the latter always in the night.

THE FARMER.

BALTIMORE, FRIDAY, FEBRUARY 26, 1830.

☞ MORE OF THE NORTH CAROLINA GOLD MINES.

Extract to a member of Congress, Feb. 1, 1830.

I take my pen to give you an account of our progress at Bundletown last week.

Number of hands employed.		Gold made each day. dwts.	grs.
13	Monday,	27	20
14	Tuesday,	22	12
16	Wednesday,	82	6
16	Thursday,	66	
16	Friday,	59	12
16	Saturday,	64	
—		—	—
91		322	2

☞ The public has long felt the want of a *respectable well conducted establishment*, for the express purpose of selling and buying horses and carriages, managed by men of intelligence, and offering a guarantee for the integrity of its transactions; we do not mean a common livery stable, but a bazaar to which a gentleman may go and buy a horse for any particular purpose, with *an adequate warranty that he is in fact what he is represented to be.* That the proprietor, if he be lame or blind, old or diseased, will *say* so, frankly and honestly. Such an establishment we understand the "NEW YORK TATTERSALS" to be, where all is managed with fairness and honour. The following is the advertisement of the proprietors, of Tattersals, New York, which is given that a better idea may be had of the scope of their operations. Every large city ought to have a similar convenience established expressly for the purpose, where every man whether seller or buyer may count on being fairly and honestly dealt by.

TATTERSALS, No. 446, BROADWAY.

Blyth & Watson.

Auction this afternoon, Monday, December 14, 1829. Sale to commence at half past 3 o'clock.

The regular public sale at Tattersals—446 Broadway, will take place this afternoon (Monday,) December 14th, at half past 3 o'clock. In the sale Arena.

Strangers will be expected to leave a deposit at the time of purchase.

No. 1. Jet black horse, well broke to the saddle, but 5 years old, and has been in harness, warranted sound.

No. 2. Bay horse, good and strong—blind.

No. 3. Sorrel horse, 10 years old, 16 hands high, calculated for heavy work, warranted sound.

No. 4. Bay mare and cart—the mare is 5 years old, kind in all harness, and accustomed to a farm, and warranted sound—the cart is second hand but in good order, to be sold together or separate.

No. 5. Bay horse, 8 years old, true, kind, and fleet in harness and easy under the saddle, warranted sound.

No. 6. Bay pony, just imported from England, and perfectly broke to the saddle, warranted sound.

No. 7. A mare 4 years old, by ECLIPSE from a fast trotter, broke to all harness and the saddle, warranted sound.

☞ No. 8. The celebrated and fast trotting horse SHONGO, whose qualities as to speed, bone, and bottom are sufficiently known and preclude a full description; it is enough, that among horses of the greatest speed which have been upon the turf, SHONGO is far from being the slowest, having trotted his mile in the space of 3 minutes. In his several matches with the famed trotters, Tom Thumb, Top Gallant, and Betsey Baker, he has ever proved second. SHONGO has been owned by a gentleman in the city of New York for the last 5 years, and is believed to be sound.

In addition to others which are expected, and will be particularly described at the time of sale.

After which, a variety of carriages, single and double wagons, gigs, buggies, &c. &c. among the number the following:

1 farm wagon, new.—1 small wagon, new.—Several gigs.—1 second hand phæton for one horse.—1 new wagon for 1 or 2 horses.—Several saddles, bridles, &c.

The horses will be exercised in the GREAT SALE ARENA.—The principal part of the new and second hand carriages and gigs will be sold from the galleries.

Condition of sale—Cash on delivery, in current money.

The proprietors have adopted the following rule—That when a sale is made of HORSES which are warranted, and the owner does not reside in the city, the proceeds will be retained in the hands of the proprietors for *three days*, when unless a claim is made by the purchaser, they will be paid over, and after that period they will not hold themselves responsible.

The horses and carriages to be seen during the morning.

LATEST FOREIGN NEWS.

By the Pacific at New York, Liverpool papers are received to the 16th January. Rumour speaks of various changes in the British ministry.

Robbery of the Mint.—A robbery of the Mint, to the amount of 2,804 blanks prepared for sovereigns, has been committed by a person named George Keith, a man who has been employed 20 years in that establishment. He has absconded, leaving a wife and seven children. A similar depredation was committed at the Mint about 30 years ago, by a soldier named *Turnbull*, who was executed for the offence.

Letters from Whitby state, that one of the greatest storms within the memory of man, was experienced there on the 9th of January. Several dwellings and the custom house were washed away, and in an adjoining fishing town twenty houses have been destroyed.

Highly important!—We learn from the *Messenger des Chambres*, that the "politicians of the United States propose to divide their immense territory of the Union into four independent republics, and that this plan has numerous partisans."

France and Algiers.—The Messenger des Chambres, of January 12, states in a second edition, dated at noon, that "two plans had been discussed to subdue Algiers. The one was to land 25,000 men with the necessary material; the other, to persuade the Viceroy of Egypt to place at our disposal a body of troops sufficient to besiege Algiers. In this case we should furnish the necessary material, but we should avoid risking the health of our soldiers in a climate to which they are not accustomed. It is said that the last plan has been preferred, and that it was the sole object of the mission of M Hudder, at Alexandria. That officer has just landed at Toulon. After having received the instructions of the Government, he will return to General Guilleminot at Constantinople, going by way of Alexandria, where he will have another conference with the Viceroy.

Relative to Prince Lenpold's nomination to the sovereignty of Greece, there are various contradictory assertions—he has, and he has not been nominated; he will, and he will not accept the honor.

A letter from London of January 13, to the Liverpool Mercury, says:—"I am able to inform you positively that, up to 12 o'clock this day, Prince Leopold had not positively declined the sovereignty of Greece, but it is true that he has not accepted it. He has expressed doubts as to his ability, but in the circles which he visits he is esteemed an able man. It is still thought he will be prevailed upon to accept the honor. The Duke of Wellington has the affair much at heart.

Again. "It is rumoured that a great personage has been warmly opposed to Prince Leopold's occupying the proposed throne of Greece."

LONDON MARKETS.

From the London New Price Current of Jan. 12.

TOBACCO.—There are no sales worth reporting.

RICE.—There are no sales of rice of any extent to report.

COTTON.—The public sale of Friday, 919 bags Boweds, went off at full prices, 5d to good fair 5¼d to 6½d. The market has been quiet, but the prices are firmly maintained; the purchases by private contract for the week ending last night inclusive, are too trivial for insertion.

Liverpool Market, Jan. 16.

Owing to the stocks of cotton, on the 31st ult., having proved somewhat larger than had been pretty generally anticipated, the sales last week (including those at public auction) were only 5740 bales, including 80 Sea Island at 12 a 15d; 89 Stained 6 7-8 a 9d; 1369 Upland, 1334 5¾ a 7 1 8; 850 Orleans, 6 1-8 a 8¼; 490 Alabama 5 5-8 a 6 5-8. At auction, 8th inst. 610 Sea Island at 12 a 15½d; 80 Stained at 6¼ a 9.

The cotton market has experienced a considerable change for the better this week, 27,360 bales of all descriptions being the amount of operations, including 90 Sea Island at 12 a 15d; 90 Stained, 6¾ a 9d; 11,840 Upland, 5¾ a 7¼d; 2540 Orleans, 5¾ a 8d, 3080 Alabama 5¾ a 6 3-4d.

The principal purchases have been made by spinners, although speculators have assisted materially, say to the extent of 3000 American, 1000 E. India, and 5000 Brazil, in all 9000 bales; this extensive business has produced an improvement of ¼d per lb. in N. Orleans, and a ¼ a 3-8d in Upland and Alabama, and the market has a steady appearance. The leading causes which may be assigned for this sudden re-action, are the prevalence of strong easterly winds, whereby arrivals are kept back, and the publication of an article in the Manchester paper of the 9th inst. by the editor, setting forth the propriety of spinners striking themselves at present prices; from the deference paid by many to the personal opinions of the writer of that article, it would appear that they have been biassed accordingly. The Sea Islands sold this week consist of lots withdrawn from the public sale last week, and some advance has been obtained. The import this week is 2408 bales, of which 307 are from the United States.

There is no change to notice in the price of wheat or flour, and very little doing. Flaxseed, 55s per hhd. has been accepted for 100 hhds. Tobacco, there has been a moderate business done, and no change in prices.

Average of wheat for the week 56s 1d; 6 weeks 56s 7d duty 30s 8d. On flour, 18s 6d per bbl.

Liverpool Corn Exchange, Jan. 16.

We had for last Tuesday's market moderate arrivals of wheat and oats, and a trifling supply of other grain. Little business was done in the wheat trade at the quotations of the preceding Tuesday. Oats, however, were, with a dull sale, 1d per 35lb lower. Other articles of the trade were in limited request at almost nominal prices.

15.—With a very moderate import of wheat and oats since Tuesday, we have very little business doing in these articles at Tuesday's prices; other descriptions of grain are dull at our quotations.

Prices Current in New York, February 20.

Bees-wax, yellow .21 a 23. *Cotton*, New Orleans .10½ a .12½; Upland, .9 a .10¾; Alabama, .8½ a 11½. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean -— *Flour*, N. York, bbl. 4.62½ a 4.75 Canal 5.25 a 5.62½; Balt. Howard st. 4.87½ a 5.00; Richmond city mills, 5.00 a —; country, 4.62½ a 4.75; Alexand'a, 4.62½ a 5; Fredericksburg 4.62½ a ——; Petersburg, 4.62½ a 4.75 Rye Flour, 3.50 a 3.62½; Indian Meal, per bbl. 2.75 a ——; per hhd 13.00 a 13.25. *Grain*, Wheat, Genesee, 1.03 a 1.06; Vir. 80 a 90; Rye, North, 65 a 70; Corn, Yel. Nor. .52 a 54; Barley, 65 a .68; Oats, South and North, .31 a .38; Peas, white, dry, 7 bu.——; Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8.25 a 8.75; prime 5.75 a 6.25; cargo ——a 4.50; Butter, N. York, .12 a .16; shipping, .6 a 10; Lard, .5 a .6; Pork, mess 11 a 11.75; prime 9.00 a 9.50

Prices Current in Philadelphia, February 22.

Bees-wax, yellow —. a .20; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10 a 10.50, prime 8 a 9.00, cargo 7; *Butter*, No. 1, 8 a -, No. 2, 6. a--; *Cotton*, New Orleans .10½ a .12½, Upland 10. a .11, Tennessee 9½ a .10½, Alabama 9½ a 10½; *Feathers*, South. .33 a .34, West. .30 a .32; *Flax* .7½ a .8. *Flour*, sup. 4.50; fine, 4.12½ a —; Rye 3.25 a 3.75; Corn meal, hds. 11.00 a ——, bls. —— a 2.06¼; *Flaxseed*. cask 10.25; bu. 1.30 a ——; *Grain*,—Wheat 85 a 90—Rye .50 a 52, Corn l. c. white, .36 a .38, l. c. yellow, .38 a .40, u. c. round, .40 a .44; Oats .25 a .30, Barley, Pa. .60 a .62; do. East. .— a .—; black-eyed Peas .40 a .50. *Hams*, Jersey .8 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .6 a .6½; *Oil*, linseed, 71 a 72; *Pork*; mess, 11.25 a ——, prime 10.50 a 11; cargo 9.00 a 9.50, *Rice*, 2 50 a 3.25; *Tobacco*, Kentucky .5 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .18 a .22, half blood .26 a .—; three quarters blood .28 a .32, full blood 28 a .32; unwashed, generally 6 cents less, according to quality.

Prices Current in Boston, February 19.

Apples, best, bbl. 1.75 a 2.25. *Beans*, white, bushel .75 a 1.00. *Beef*, mess, bbl. 9.25 a 9.50; cargo No. 1, 7.75 a 8.00; No. 2, 6.75 a 7.00. *Butter*, inspected, No. 1, new, lb. .12 a .14. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.50 a 5.75; Genesee, 5.75 a 6.00; Rye, best, 3.62 a 3.87. *Grain*, Corn, bu. .62 a 63; Rye, .75 a .78; Barley .62; Oats .40 a .42. *Hogs'-Lard*, 1st sort, new, lb. .8 a .8½. *Pork*, clear, bbl. 15 a 16; Navy, mess, 12.50 a ——; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 1.75 a 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 25 a .33; Red do. Northern. .6 a .8; French Sugar Beet 1.50; Mangel Wurzel ----. *Wool*, Merino, full blood, washed, .40 a 45; do. do unwashed, .25 a .40; do. three-fourths, washed, .32 a .40, do. half blood, .33 a .35; do. quarter, washed, .28 a .30; Native, washed .28 a .30; Pulled, Lambs', 1st sort, .40 a —; do. 2d sort, .30 a .35; do. Spinning, 1st sort, 33 a .35.

TO MERCHANTS AND PLANTERS.

Nathaniel F. Williams tenders his services to his friends and the public, to transact business on commission, and respectfully refers to the gentlemen named below, for his qualifications.

References.

Hon. Samuel Smith, } *Senators in Congress, from Md.*
" E. F. Chambers, }
" John Forsyth, *Senator in Congress, from Geo.*
" Daniel Webster, *Senator in Congress, from Mass.*
" David R. Williams, *Society hill, S. C.*
" Lewis Williams, *Represent. in Cong. from N. C.*
" Warren R. Davis, *Represent. in Cong. from S. C.*
Messrs. Macdonald & Ridgely, }
William Lorman, Esq. } *Baltimore.*
Luke Tiernan, Esq. }
Isaac McKim, Esq. }

Baltimore, February 5, 1830.

FOR SALE,

Two of the highest blooded Stud Horses, and two of the best stock of Breeding Mares, both with foal. Those who wish to purchase can learn every particular by applying personally to Samuel L. Robeson, of Lower Merion, Montgomery county, Pennsylvania, or by letter, post paid, directed to him, Philadelphia.

Price of Grand Sultan, $1000 } half cash, balance in
Price of Orror, 1000 } one year, security in Philadelphia.
Price of Lady Lightfoot, 175 cash.
Price of Georgiana, 140 cash.

February 26, 1830.

NEW AMERICAN GARDENER.

A few copies of the New American Gardener, by Mr. Fessenden, Editor of the New England Farmer, for sale at the office of the American Farmer, and at the Seed Store of Messrs. Sinclair & Moore, price $1.25. For common practical purposes, this work is believed to be the best and cheapest extant.

Baltimore, February 26, 1830.

HORTICULTURAL.

The subscriber, agent for Messrs. D. & C. Landreth of Philadelphia, will receive orders for all kinds of Plants, Bulbous Roots, Fruit Trees, &c. cultivated by them, which will be carefully packed, and delivered in Baltimore, in good order, *with special care as to kind and quality.* He also keeps constantly on hand the Messrs. Landreth's superior Garden Seeds, all put up by them, and each paper bearing their warranty, and delivered here at wholesale or retail at the Philadelphia prices. Also on hand, a good supply of Clover, Lucerne and Orchard Grass Seeds of fine quality; and will shortly be supplied with other Grass Seeds. Also in store 500 bushels of Northern Potatoes of different kinds, that can be recommended for seed. Likewise, a few Black and Golden Peas from Germany.

JONATHAN S. EASTMAN.
No. 36, West Pratt street,
Between Charles and Hanover streets.

J. E. keeps as usual, a constant supply of Agricultural Implements.

ALMANAC.

1830. Feb.—March.	Sun. Rises. H. M.	Sun. Sets. H. M.	Length of days. H. M.	Moon. sets. H. M.
Saturday,...... 27	6 27	5 33	11 06	10 50
Sunday,........ 28	6 26	5 34	11 08	11 55
Monday,....... 1	6 26	5 34	11 08	morn.
Tuesday,...... 2	6 25	5 35	11 10	1 00
Wednesday,.. 3	6 24	5 36	11 12	2 00
Thursday,..... 4	6 22	5 38	11 16	2 45
Friday,......... 5	6 21	5 39	11 18	3 38

Moon—First Quarter, 2d, 00h. 7m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—The obstruction of the navigation by ice, has been so far removed as to permit the arrival and departure of vessels, and no further interruption from this cause is looked for this season. Business is reviving, and the usual activity and bustle has already commenced on the wharves and country produce marts. There is little or no change in any of the staple articles of the market. Small advance will be noticed in Howard street flour, owing to a very gradual improvement in the demand; from wagons it is selling at $4.25. Live stock is becoming quite *tame*, and our highest quotation is for the very first rate.

Tobacco.--Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12.00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25 00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 2 hhds Maryland, 14 hhds Virginia, and 9 hhds Ohio.—Total 25 hhds.

Flour—best white wheat family, $5.50 *a* 6.00—super. Howard st. 4.37½—city mills, 4.00 *a* 4.25;—Susquehanna, ——. Corn Meal, bbl. —— *a* 2.25—Grain, best red wheat, .-- *a* .80; best white do. .80 *a* .90; ordinary to good, .70 *a* .75—Corn, white, .36 *a* 37; yellow .40 *a* —; Rye, .46 *a* 48: Oats, .31 *a* .33;—Beans, 90 *a* 1.00—Peas, .65 Clover seed, 5.00 *a* 5.25—Timothy, 2 *a* 2.50—Orchard Grass, 1.75 *a* 2—Herd's, —— *a* 1—Lucerne .37½ *a* —— lb.—Barley, ——Flaxseed, 1.20 ——Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .9½ *a* .10½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .21 *a* .21½; in bbls. .22½ *a* 23—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.—Hemp, Russia, ton, $215 *a* 220; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, —— *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6.00 *a* —— No. 2, 5.57 *a* ——No. 3, 3.75——Bacon, hams, Balt. cured, .9 *a* .9½—Feathers, .30 *a* 31—Plaster Paris, cargo price per ton, 5.00 *a* 5.25; ground, 1.25 bbl.—Prime Beef on the hoof, .4.00 *a* 5.00—Pine Wood, by the vessel load, 2.25—Oak Wood, 3.37½—Hickory, 5.

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On the Means of Recruiting Worn out Lands, by Mr. Benjamin B. Cooper—Report to the Legislature of Ohio, on the Culture of Hemp in that State, with a calculation, shewing the probable profit per acre—Disease in Sheep—Florida and Louisiana Sugar, new process of boiling and clarifying the Cane Juice, by Steam—On the Importation of Wool and Hemp—Weight of a Devon Cow, slaughtered in Baltimore, raised and fattened by Henry Thompson, Esq.—On preventing the Bleeding of the Vine, by A. Parmentier—The Roanoke Trade—Internal Improvement in Tennessee—Essay on Railroads continued, with engravings of the Rocket and of the Sans Pareil--On Snuff Taking—Female Surgeons—Poetry, A Morning at a Farm House—Editorial, Tattersalls, New York—Latest Foreign News and Prices—Prices in the New York, Philadelphia, Boston and Baltimore Markets—Advertisements--Almanack.

Printed every Friday, at Five Dollars per annum, for
JOHN S. SKINNER, Editor, by John D. Toy.

AGRICULTURE.

ON THE TRUE PRINCIPLES OF FARMING.

[In passing through any portion of the states south, perhaps we might say of the Delaware, every one must perceive that the occupiers of the soil, hold *too much land*, in proportion to their *force* and *capital*. This redundancy of land over the means of *profitable* cultivation, leads to *over* cropping; and in fact, certainly, though imperceptibly to final bankruptcy. The blindness with which the same course is pursued, to the same result, from year to year is really astonishing; one would suppose that any young man of common sense, who commences the business of farming, would at the very onset, make this calculation: I have at my command so much force, or as it is termed so many hands to work; now how can I employ this labour so that it shall yield me the greatest clear profit after deducting keep, interest, and wear and tear, having an eye so to manage matters that if my land does not improve, it shall not degenerate? yet this calculation is either never made, or if made, is done so unskilfully and with so little regard to the true items on which it should be founded, that the result rarely corresponds with his anticipation; and hence we see in every direction *large fields* on which much labour has been unprofitably bestowed, and which yield not half as much as the same labour, or half the labour, and the other half turned into capital, and that capital into manure, would have yielded, if applied on *one fourth* or one eighth of the number of acres of land.

Thousands of acres are cultivated from one generation to another, that have been yielding less and less, until they no longer produce in many instances, two barrels of corn or four bushels of wheat to the acre—still when its turn comes, the same poor exhausted field, with scarcely one sign of vitality left, like modern invalids, systematically starved and bled whilst any pulse remains; is doomed again and again to undergo the same number of harrowings and ploughings, without *any calculation, approaching to accuracy*, as to *profit and loss*—which should be the *first* and the *last* and the *only* question.

We have not time to follow up *these* suggestions with details and facts; every reader's own reflection and observation will suggest them. But for the sake of practical exemplification we select the following article to which we invite the attention, especially of all young farmers who are willing to allow, that in practical agriculture, as well as in commerce, or manufacturing establishments, some little *calculation*, some regard to cost and to *product;* some comparison of the *outlay* with the *income* may be useful. It is true that the young farmer may get along without the trouble of practising upon the old hackneyed rules of addition, substraction, multiplication and division—but let him remember that after these comes *reduction*, and reduction leads quickly to ruin! To a bad manager nothing is so disagreeable as to *look a head*, unless he has a very fertile and friendly imagination which flatters him that every new scheme will remunerate past failures.]

(From the New England Farmer.)

EXAMPLES OF GOOD FARMING.

Mr. Fessenden,—In your paper of 5th February, under the head of "Advantage of Thorough Culture, was pleased to see the produce of a farm of forty-eight acres in the vicinity of Boston. It certainly does honor to the management of the place; yet think it would have been only just to those private farmers, who can scarcely succeed in doing half as much, to have informed us that this is the produce (as I have learned by inquiry) of the farm belonging to the city of Boston, at South Boston, where they have at their command all the manure of the city, all that is produced from the hogs and cattle belonging to the establishment; and at the same time all the labor of the tenants of the Alms-house and house of industry for its cultivation. These, it must be admitted, are singular advantages; and such as no common farmer can possess.

I honestly think that this produce is very great; I do not mean to undervalue it; and I hope it will not be ascribed to any improper motive, if I compare with it some other crops, the accounts of which are in my possession. It may at least inspire an honorable competition, which in agriculture is both laudable and useful.

The crops of the City farm at South Boston, according to your account, in 1829, are as follow:

31 tons of English hay,
Lucerne valued at five dollars,
300 bushels of potatoes,
417 ‘ beets,
450 ‘ mangel wurtzel,
886 ‘ or 21 tons of carrots,
Pasture for 14 rows 9 weeks, (aftermath)
222¾ bushels barley,
900 ‘ onions,
100 ‘ parsnips
1000 cabbages,
600 bushels turnips,
2½ tons squashes,
Cash received for vegetables $306.64
Amount used in a large victualling concern $176.00,
Celery on hand valued at $5.

It not stated how they ascertain the amount of vegetables used at $175, but it is supposed to be by conjecture.

The produce of this farm in 1826, as given in the report of April 30, 1827,* is as follows!—

4	tons	barley cut green,	at $16 per ton	$64.00
4	‘	hay	20	80.00
3	‘	rowen	18	54.00
1½	‘	millet	8	12 00
		Corn fodder valued at		260.00
80	bushels	corn at	90 cts per bushel	72 00
2162	‘	potatoes	42 ‘	908.04
330	‘	carrots	33 ‘	108.90
300	‘	mangel wurtzel, 33 cts.		99 00
300	‘	turnips, at 16	‘	48.00
341	‘	beets,	50 ‘	170 50
1800	cabbages,		at 4 cts. each	72 00
		Peas, Beans, small vegetables, and fruit sold and consumed in the house, about		500.00
				$2443.44
		Profits on the purchase and slaughter of Beef,		700.00
		Profits on the Piggery,		914.23
				$4062.67

The prices of many articles of produce, as appear above, must have been very high. The article of Corn fodder is rated at 260 dollars. We suppose it must have been used for soiling—the profits of the beef and swine ought not to be reckoned at the full amount; if, as is probable, though the fact is not stated, they were kept and fattened upon some of the produce credited as above to the farm. The sum of $500, credited to the farm on account of peas, beans, &c. &c. is we suppose by estimation; so it appears, and perhaps, is not overstated, though it varies from this year's estimate.

Let us look next at the account of the Salem Alms-house for years 1817-18 and 19.

In the year 1817 about eighteen acres of land were broken up, the produce of which was as follows:—

Pork raised 4391 lbs., of which 2000 lbs. sold for $280.
Turnips 1000 bushels,
Potatoes 2500
All the summer vegetables used in the house

In 1818 about thirty-five acres were cultivated Produce as follows:—

Pork killed, weight 7960 lbs.
12 live pigs sold for $42,
On hand, 57 pigs,
Corn 400 bushels,
Potatoes 2250 ‘
Turnips 900 ‘
Three tons squashes,
Fifty ‘ pumpkins,
And all the summer vegetables necessary for the Alms-house.

"In 1819 fourteen acres more of land were broken up and cultivated, and about the same quantity laid down to barley and grass; so that the acres of land actually in tillage were nearly the same this year as the last."

The barley ground must be considered tillage, certainly, if included in this year's crops.

Produce for 1819
Pork already killed 9012 lbs.
28 hogs to be killed this season, and will now (when this account was given) average over 250 lbs.
A few live pigs sold when small,
73 live pigs, on hand to be kept over, now average over 170 lbs. each,
Corn raised 325 bushels,
Barley ‘ 235 ‘
Potatoes ‘ 3138 ‘
Onions ‘ 225 ‘
Turnips ‘ 250 ‘
Pumpkins raised, 48 tons,
Squashes raised, 22 tons,
Broom Corn sufficient to make one hundred dozen of brooms.

Beets, carrots, cabbages, &c. sufficient for the winter, and all summer vegetables in abundance. The farm has superior advantages for collecting manure from the sea, rock weed, sea weed, and muscle bed in the greatest abundance.

To the above, I have the pleasure to subjoin the account of this farm for the present year, which I have recently received, and which exhibits most honorable results.

"The following is the amount of produce raised upon the Salem Alms-house farm during the year 1829, the same being as near the quantity produced as can be ascertained without actual weighing and measuring."

75 tons of English hay,
3 ‘ salt hay,
600 bushels corn,
4000 ‘ potatoes,
200 ‘ barley,
500 ‘ turnips,
200 ‘ beets,
600 ‘ onions,
100 ‘ carrots,
50 ‘ peas in pod,
30 ‘ beans do.
10 tons squashes,
10 ‘ pumpkins,
300 dozen cabbages,
200 lbs. sweet marjoram,
300 ‘ sage,
200 ‘ balm and other herbs,
40 ‘ garden seeds, various sorts,
50 bushels cucumbers,
3 tons melons,
100 bushels radishes,
Broom corn for 12 dozen brooms,
500 roots celery,
300 fowls,
11,600 lbs. pork,
10 calves,
200 cords manure,

---

* See N. E. Farmer, vol. v. p. 390.

Apples, plums, peaches, cherries, &c. but few, say 10 bushels.

Stock kept upon the farm,—

Oxen, average number	10
Cows ' '	10
Horses	2
Bull	1
Hogs of all ages	80

35 acres of ground were cultivated,
50 ' ' ' mowed.

This farm contains now probably about 110 acres, several of which being ledge, is incapable of cultivation.

We come next to the accounts of some private establishments, which have been given to the public, and which we deem highly creditable to the intelligent and successful cultivators, whose names they bear.

John Prince, Esq. of Roxbury, reported to the Massachusetts Agricultural Society, in 1821, the following amount of vegetables for consumption on his farm, and was honored with their premium. The quantity, however, he states, is much smaller than he had the preceding season.

800 hills of summer squashes, which yielded largely.
656 bushels mangel wurtzel,
400 ' carrots,
537 ' ruta baga,
745 ' potatoes, besides early ones used during the season,
15 bushels sweet potatoes,
37 ' Russian radish,
400 ' turnips,
Cabbages, a considerable quantity.

Messrs. *Tristram* and *Henry Little*, of Newbury, reported the following amount of crops in 1824, to the Massachusetts Agricultural Society, and were honored with their premium.

The produce from 16 acres of tillage land is as follows, viz.—

230 bushels of Indian corn,
40 ' barley,
12 tons English hay,
2¾ ' millet,
400 bushels potatoes,
1500 ' beets and mangel wurtzel,
920 ' turnips,
150 ' onions,
About 2 tons of cabbages and squashes, together with a variety of esculents common to farms in general.

In 1825 the Massachusetts Agricultural Society's premium was conferred on *E. Hersey Derby*, Esq. of Salem, for the greatest quantity of vegetables raised for consumption on his farm of about 14 acres of land. The following is his statement:—

Cabbages at 56 lbs. per bushel, .	1503
Pumpkins, 7 ox-cart loads, .	294
Potatoes, ...	415
Mangel wurtzel, . . .	2036½
Sugar beets, ...	274
Russian radish, . . .	90
English turnips, . . .	1026
Bushels	*5638½

The foregoing are all highly creditable examples of extensive and successful cultivation.

We come now to some other reports, somewhat more in detail, and equally creditable to our cultivation.

John Warren, of Westborough, Worcester county, on a farm of forty-six acres produces annually,—

50 tons English hay,
6000 lbs. pork and beef,
1100 ' butter,
2500 ' cheese,
300 bushels corn and wheat.*

Comfort Eliot of Croyden, N. H. on a farm of eighty acres, has this year (1827) raised—

175 bushels grain,
1930 ' potatoes,

and turned off in stock, grain, butter, shoats, &c., enough to amount to over five hundred dollars, and has a handsome stock left. He has hired but three months' labor during the season.†

The produce sold from the farm of Richard Hildreth, in Sterling, Worcester county, in 1826 is as follows:—

Butter, :	$300
Hay, ...	100
Pork, about . . .	150
Calves, about . . .	70
	$620

His farm consists of sixty-five acres, and the amount paid for labor out of his family was $30 in hay time. He keeps no horse, but sells his produce at the farm.‡

The subjoined reports are from the reports of the Essex Agricultural Society for the year 1822. The farm of *William Bartlet*, Esq. of Newburyport, situated in Methuen, consists of two hundred acres, a considerable part of which is in woodland and pasturing. How much under tillage is not said—but the following is the amount of crops for 1821—

Cider 35 barrels,
Indian corn 600 bushels.
Potatoes 700 '
Eng. turnips 40 '
White beans 4½ '
Rye 75 '
Oats 320 '
Butter 350 lbs.
Cheese 2000 '
Pork 4000 '
Pumpkins 40 cart loads,
English hay 75 tons,
Coarse fodder 10 cart loads, equal to second crop hay, being mowed from an oat stubble laid down to grass.

For 1822 as follows:—

English hay 70 tons,
Meadow hay 10 '
Oats 306 bushels,
Potatoes 1200 '
Indian corn 300 '
Flax (by estimation) 500 lbs.
English turnips 1100 bushels,
Ruta baga 300 '
Cider 100 barrels,
Winter apples, 40 bushels,
' pears 20 '
Cheese, 2400 lbs.
Butter 400 '
White beans, 6 bushels,
Calves 12, at $7 each $84,
Four fat oxen, sold for 294.

The labor and superintendence employ ordinarily three men and one boy, and three women or girls. In haying time, and seasons of extraordinary hurry, as much labor is had as can be used to advantage. No spirituous liquor is ever used on this farm.

The farm of *Col. Jesse Putnam*, in North Parish of Danvers, consists of forty-four acres of tillage, forty of pasture, and eighteen of wet or low ground meadow.

The produce of his farm in 1821 and '22, as near as he could estimate the same, is as follows:—in 1821—

English hay 24 tons,
Oats for fodder 3 '
Wet meadow hay 8 '
Indian corn 70 bushels,
Potatoes 800 '
Barley 70 '
Carrots 40 '
Turnips 20 '
Cabbages 10 dozen,
White beans, 2 bushels,
Green peas for market 4 bushels,
Summer apples, 130 bushels,
Winter apples, 600 '
Pork 2000 lbs.
Pumpkins 2 tons.

In 1822 as follows:—

English hay 30 tons,
Oats for fodder 4 '
Wet meadow hay 7 '
Barley for fodder 3 '
Indian corn 150 bushels,
Potatoes 300 '
Onions 150 '
Carrots 90 '
Turnips 150 '
Cabbages 30 dozen,
White beans 7 bushels,
Green peas for market 50 bushels,
Summer apples 150 bushels,
Winter apples 600 '
Pork 2000 lbs.
Pumpkins 4 tons.

He kept at this time no particular account of his dairy, but in the year 1825, the whole amount of butter obtained by him in six months, from five cows, carefully and highly fed, was 1038½ pounds, or nearly 208 pounds to a cow.

The next statement to which we shall refer, is that of *William Thurlow*, in West Newbury. He has 150 acres—31 of which are mowing and tillage—26 acres of meadow, 8 of which is salt marsh. The produce of the mowing and tillage in 1828 is as follows:—

262½ bushels Indian corn,
106 ' wheat,
340 ' potatoes,
73 ' onions,
35 tons English hay,
39 ' meadow hay, including salt marsh.

The produce of his orchard on an average for the last eight or ten years (1828) has been from 5 to 600 barrels of winter apples, and 50 barrels of cider.

The produce of his dairy the present season, (1828) from 12 cows has been—

Butter, upwards of 400 pounds.
Cheese ' ' 3000 '
Cash paid for labor from Nov. 1st 1827 to Nov. 1st 1828, is $127.

We add to these the statement of *Rev. Mr. Allen* of Pembroke, Plymouth county, respecting the produce of his farm of about forty acres, for the year 1827, a small farm, which "a few years ago, it is stated, yielded little else than briers and thorns." His English hay is estimated at $1 per ton,—potatoes at 25 cts. per bushel,—corn at $1. We give the result, allowing $50 for his own superintendence.

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* We avail ourselves of this opportunity to correct an unintentional error in a former communication on the subject of Mr. D's raising several crops of potatoes the same season, from the same seed. We remarked that he planted the *sprouts*. He considers them as "shoots," or perfectly formed plants, having the roots and leaves entire and so easily detached from the parent potato. See his communication on this subject in Mass. Agricultural Repository, vol. vi. p. 394, or New York Memoirs of Agriculture, vol. ii. p. 318.

* New England Farmer, vol. iv. p. 179. Reports of Worcester Agr. Soc.

† N. E. Farmer, vol. vi. p. 171.

‡ Ibid. vol. v. p. 194.

Farm Cr.	$878.14, amount of produce.	
' Dr.	441.12, expenses, &c. &c.	
Balance	$437,02[*]	

I am fully aware, Mr. Editor, that in the views of gentlemen, who are accustomed to deal in their thousands and tens of thousands, all these statements must appear as very small matters. The gains of Agriculture, especially in New England, where we cannot be said to have any large farms, must always be small; yet if farming did no more than to pay its expenses, and yield a reasonable, though humble equivalent for the labor bestowed, the health, the pleasure, the independence, the constant and innocent employment which it brings with it, the many cheap luxuries, which are found upon the farmer's table, and which are the sweeter as being the product of his own labor, its advantages for rearing a family in habits of labor and self-dependence, and its innummerable, favorable and delightful satisfactions to a grateful and pious mind, must be set off against the innummerable hazards of speculation and trade, and the perplexities and embarrassments of commercial or public life.

I fear I have already extended my communication to too great a length; but I have in my possession, the accurate accounts of a very intelligent farmer, for ten years, ending with 1820, when the markets were much better than at present, who, having retired from commercial pursuits, returned to the quiet satisfactions and healthful labors of his youth in the country; and has there given an example of good conduct and good management, of an industrious, frugal, useful, honorable, and rational life, which does him more honor than all the mere splendor of wealth, or political distinction could bestow. I should offend his modesty by any allusion by which his name should be recognised; and I shall give, therefore, only the general results of his agricultural operations.

He has twenty-five acres of land under cultivation, and five acres of salt marsh, together with a wood lot sufficient to supply his family. For ten years (it will be remembered that *produce* was much higher then than it now is,) though he kept no market cart, his annual sales averaged $869.37

his annual sales averaged	$869.37
The supplies received from his farm for the use of his family, at a fair estimation, or as he would have been obliged to pay for them, must be put down at	454.00
	$1323.37
Out of this deduct the annual average expenses, allowing nothing for his own labor and superintendence	638.30
Balance	$785 07

This farm has great advantages from its vicinity to a good market, and a considerable quantity of fruit grown upon it.

I shall only add the account of another farmer in Pennsylvania, in the neighborhood of Philadelphia, who was formerly engaged in mercantile business, but being unfortunate, he retired into the country. His accounts indicate extraordinary skill and good management, and the sanguine ought to be cautioned against being deluded by an example of success, which few, very few, can expect to realize.

The following is the account of the produce of a farm near Philadelphia, owned by *John Lorain*.[†]

The first is the statement of the crops of the farm, when he purchased it of Mr. *Shriver*.

Statement of Mr. *Shriver's* crops in 1806.

64 acres—	
242½ bushels oats at 43 cents,	$104.27
12½ ' wheat, barley, and oat tailings mixed, sold for	5.83
197½ bushels potatoes at 50 cts.	88.50
36¾ ' wheat $1.75,	64 31
5½ ' buckwheat 50 cts.	2 75
9 tons hay at $17.50	157.50
5 ' corn fodder at $8,	40.00
226½ bushels rye at 80 cts.	181.20
155 ' barley 90 cts.	139.50
250 ' Indian corn at 60 cts.	150.00
8 acres rented to a widow lady, with the old farm house, &c.	100.00
2½ acres rented to a negro man, with a small house,	29.16
31½ acres in pasture, woods, yards, roads, &c.	
106 acres,	$1063.02

Statement of Mr. *Lorain's* crops in 1811, five years after purchasing the farm of Mr. *Shriver*.

13½ acres,—		
277 bushels of wheat at $1.75		$484.75
25 tons of superior stubble crop hay at	$7.50	187.50
15 acres—		
1086 bushels Indian corn at 60 cts.		651.60
196 ' barley 90 '		176.40
23 tons corn fodder	$8.00	184.00
7-8 acre—		
263 bushels potatoes	50 cts.	131.50
56 5-8 acres—		
130 tons hay	$17.50	2275.00
Received for soiling horses		72.85
Sundries sold at market		37.10
20 acres in roads, gardens, woods, &c.		
106 acres,		$4200.20

This, it will be admitted, is a most extraordinary and flattering result. The experiment was favored, doubtless, not by good management merely, but by good prices and a very fertile soil.

We have, perhaps, nothing in New England which can promise such results as this; yet our own soil with good management may be made to yield a fair recompense for the labor bestowed. We have yet to learn, as has often been remarked, "what a well and thoroughly cultivated acre will produce." The above statements, when viewed together, will, I think, be examined with interest by the agricultural part of the community, especially as I have confined myself to facts and authentic statements; and, instead of showing what may be, have shown what has been done. The best Bank among us is a Bank of rich earth; and he that has a Share[*] in this, and looks well after it, may be always sure of an honest, if not a liberal dividend. S. X.

COTTON CROPS IN SOUTH CAROLINA.

Extract to the Editor, 12th Feb. 1830.

The crop of cotton in South Carolina cannot exceed half of the usual crop: and almost the whole of it is already sold, or sent to market at a low price. The demand for slaves in Florida, &c. for sugar planting, has kept them up to a price here, on which the profits of cotton planting will not make three per cent, on an average: and yet it is so evident that the rush to the sugar planting sections will soon overdo that business, that few prudent men will venture to go there and make investments, at a high rate, to be in a very few years, rendered unprofitable. To remove to the South is imprudent; to remain in S. Carolina, and plant cotton, at the present prices, is ruinous. What are we to do? What *can* we do? Will those who heap burdens on commerce, and ruin our staple, never pause and reflect on our condition? Or is it possible that our interests are not deemed worthy of consideration? Are we out of the pale of the Union, and under the ban? For what? The most forbearing, the most submissive people that ever breathed the breath of life, could not bear the treatment we are experiencing much longer. The Union and confederation were intended for our protection as much as for that of others, but they have been used as instruments to oppress us. We are slaves, and starving slaves, to cruel, grinding taskmasters of our own blood and family. Such slavery is a bitter, bitter draught. Yours, &c.

Job Johnston.

HORTICULTURE.

(From the New England Farmer.)

On the Proper Size of Trees for Transplanting.

Eleven years ago I went to a nursery to procure fruit trees for a farm which I had commenced improving. Impressed with the popular notion, that *the larger the trees the better*, I took the largest I could find. I have nursed them faithfully; yet from a hundred I have not yet gathered a bushel of apples. They underwent so great a loss of roots in transplanting, that they have hardly yet recovered from the operation: and nearly one third became so sickly and dozy, that I dug them up and put others in their stead. Trees that have grown from the seed since these large ones were put out, now surpass them in vigor and size.

This unfortunate debut in the cultivation of fruit, induced me to search into the cause of my disappointment; and I send you the result of my study in this branch of vegetable physiology.

Roots are literally the mouths of plants. The small fibrils, which *Cobbett* says should be cut off, and which others say are, like the leaves, an annual production, but which are neither useless nor annual, are furnished with minute sponge-like substances which absorb from the soil, the alimentary juices that nourish the plant. These mouths are numerous in proportion to the size of the tree. When in a healthy condition, and in a good soil, the food which they take in, causes a constant dilation of the sap vessels, and a vigorous growth of the plant. In transplanting large trees, these essential organs of nutrition are greatly diminished, and often wholly destroyed. In this state, if the tree lives, it seldom grows. For want of the juices which the fibrils absorbed and sent up, the sap vessels become contracted and rigid, the entire system of the plant becomes deranged, and a long time elapses, under favorable circumstances, ere the organs of vitality are renovated, and acquire their pristine vigor. It resembles the famishing animal, restricted to a pittance of food. Like the muzzled ox in a luxuriant pasture, the tree is often starved to death, for want of the natural means, of which man has deprived it, of partaking of the surrounding plenty. We see this verified in town and country, in the general failure of large trees, which are planted out for ornament. And we often hear complaints against nurserymen, that their trees are good for nothing, merely because the buyer, impatient to pluck the fruit, or to enjoy the shade, of his new plantation, will have none but large trees.

On the other hand, when trees of moderate size are removed, the mouths of the plant may be preserved nearly entire, and if these are kept moist until replanted in a rich mellow soil, the growth is but very little retarded. The supply of food is kept up, the sap vessels are filled, and the ordinary process, of vegetable development goes on regularly. I have measured twenty-nine inches of new wood upon a moderate sized apple tree, which grew the first year after transplanting; while many of the large trees noticed in the beginning of this article, did not make that length of new wood in five years. In transplanting trees from two to seven feet in nursery, it is not common to lose one in hundreds. I have therefore come to the conclusion, that we are likely to enjoy the fruits of our labor the earliest, and with much greater certainty, by transplanting trees while we can preserve the system of roots nearly entire. The absorbing vessels are then preserved; and elaboration and circulation go on actively, and the plant not only lives, but grows. Four years ago, a neighbor called to look at my plum trees, but declined buying on account of their being too small (one year from the bud.) He wanted those which would bear the first year, and said he could buy such for one dollar each. I proposed that he should take two of my small ones, (being very thrifty, upon the condition, that if, at the end of five years, they were not better trees than the large ones, he should not pay for them. At the end of the third year, he told me I was right. That his large trees did produce a few plums the first year, but did not grow; and that the small ones had now outgrown them.

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[*] See N. E. Farmer, vol. vi. p. 161.

[†] See Lorain's Husbandry, p. 321.

[*] i. e. plough-share.

The desire of early bearing is common, though not always wise. The food of the cow is secreted in flesh or in milk. If she is a great milker, she does not increase in flesh. If she takes on flesh rapidly, she does not contribute much to the product of the dairy. So with the tree. If its aliment is required to mature a burthen of fruit, it cannot contribute to the formation of new wood. And if the tree is vigorous, the fruit is comparatively trifling. Youth is the season for growth in the plants as well as in the animal, and we cannot contravene nature's laws in either with impunity. The fruit of small trees never repays for the injury the tree sustains in growth.

I do not like to see precocity in animals nor vegetables, nor in intellect. It indicates something unnatural, and forebodes premature death. It is a symptom of lurking disease. In the tree, whatever natural or artificial, tends to diminish the natural supply of food, to retard its elaboration, or digestion in the leaves, or to obstruct the free circulation of the vegetable juices, becomes often the direct or remote cause of disease, and induces the generation of fruit buds. Thus it is common for trees to show blossoms and fruit the first or second year after being transplanted, before they have acquired vigorous growth. Hence horizontal limbs produce more fruit than upright ones, crooked trees more than straight ones;—and hence the artificial means for obtaining fruit, by shortening the roots, bending down the branches, ring-barking, applying ligatures, &c. to induce oviparous buds.

Different trees require different periods to bring them to a condition for transplanting. The peach should always be budded the first year, and removed the second. The apple, pear, and plum, if grafted or budded when they are of the size of the finger or thumb, should stand two years in the nursery after this operation has been performed, or may be moved without prejudice the third year. Trees should be grouted or puddled immediately after being taken up, and packed, or their roots covered with earth, to prevent the fibres from becoming dry, and disqualified from performing their offices. Bruised and broken roots should be cut off. And the roots should be kept in earth, when planting, until they are individually wanted to put out.

A Nurseryman.

Albany Feb. 6, 1830.

Interesting to Florists.—The carnation-fancier will be glad to hear of an effectual preventive against the fly, which has hitherto proved so injurious to this flower: Take some black pepper, ground very fine, and dredge it very lightly over the leaves and stalk whilst the dew is on the plant.—*English paper.*

(From the New England Farmer.)

We publish with great pleasure, at the request of the Standing committee of the Council, the following letter from Le Comte De Lasteyrie, Vice-President of the Horticultural Society of Paris.

Horticultural Society, Paris, Dec. 19, 1829.

"Mr. President—I am extremely sensible of the honor, which the Massachusetts Horticultural Society has been pleased to confer upon me, by electing me an Honorary Member. I desire that you would do me the favor of making known to the Society over which you preside, my grateful acknowledgments. I have also received your Constitution and By-Laws, which I have presented to the Horticultural Society of Paris. That Society sees with pleasure, that the Art, which it seeks to encourage in France, finds citizens in America, not less zealous to hasten its progress in the United States. It is desirous of entertaining with your Society, a correspondence which will be equally beneficial to both countries; and anxious to evince the interest which it takes in your labors, and the esteem which it has for the Members of your Society, you, Mr. President, with Zebedee Cook, Jr: John C. Gray, Enoch Bartlett, and Jacob Bigelow, have been elected Honorary Members.

"I am much flattered in being the organ of the Horticultural Society of Paris, to announce to you these elections, which will form a new bond of union between the two Societies.

"Receive, Mr. President, the assurance of the distinguished consideration, with which I have the honor to be,

"Your very obedient servant.
Le Comte de Lasteyrie.

"H. A. S. Dearborn,
"*Pres Mas. Hort. Society.*"

"P. S. Mr. Barnett, Consul of the United States at Paris, has charge of a small package, containing seeds of the *Semkiero Pimentifolia*,* which he will transmit with this letter. It grows on the Western coast of France, and has been recently introduced as a plant to be used as a sallad. It can be cut four or five times during the year, and when the leaves are young, and four or five inches high, they make a good sallad."

(From the New England Farmer.)

Massachusetts Horticultural Society.

The Standing Committee on Ornamental Trees, and Flowers, submit the following list of premiums for the ensuing year,—viz:

For the best specimen of Chinese Chrysanthemums, not less than five varieties,	*Three Dollars.*
For the best half dozen Tulips,	*Two Dollars.*
‘ ‘ ‘ ‘ Hyacinths,	*Two Dollars.*
‘ ‘ ‘ ‘ Ranunculuses,	*Two Dollars.*
For the best pot of Auriculas,	*Two Dollars.*
‘ ‘ ‘ ‘ Anemonies,	*Two Dollars*
‘ ‘ ‘ ‘ Pinks,	*Two Dollars.*
‘ ‘ ‘ ‘ Carnations,	*Two Dollars*
For the best half dozen cultivated native flowers,	*Two Dollars.*
For the finest Roses, not less than five varieties,	*Four Dollars.*
For the best bunch of double and single Dahlias;	*Two Dollars.*
For the greatest number, and finest kinds of the Camellia Japonica,	*Three Dollars.*

It being difficult to fix upon a particular day for the exhibition of any of the above named flowers which may be offered for premiums, the Committee will consider all flowers left at the Hall of the Society on the weekly day of exhibition, (Saturday) during the season, which shall be marked with the name of the cultivator, (or some device by which they may be identified,) as presented for premiums. Those not marked, will be considered as sent for exhibition only.

By order of the Committee,
R. L. Emmons, *Chairman.*

Boston, Feb. 12, 1830.

RURAL ECONOMY.

(From the Cambridge Chronicle.)

HYDROPHOBIA.

Mr. Callahan,—The disease of "hydrophobia" bears so hideous a character, that it is the moral duty as well as inclination of all, who are possessed of the ordinary sympathies for human suffering, to contribute to its prevention, as far as they may be capable; a relief from the affection, when it has actually invaded the animal economy, being *totally hopeless.*

With this view, and these sentiments, I make the communication of a "*fact*," which should be cut out and pasted in every man's parlour; for, though we have no cases (here) known to exist, at the present moment, which may require the information; yet, the cold weather we have lately experienced, is conducive to "rabies;" and it now prevails in the more northern climates to an alarming extent.

The fact I allude to, has been recently ascertained by a French chemist and surgeon, M. Coster, and published in the "American Journal of Science," conducted by Professor Silliman; a work, which, for its multiplied interests, independent of its fund of literary entertainment, deserves to be read, and patronised, by all who can command a *dollar* for the one purpose, or a *mind* for the other.

This important fact, "*that chlorine has the power to decompose and destroy the deadly poison of the saliva of the mad dog*" has grown out of chemical philosophy and chemical research, and is of more value than vaccination, or any other discovery which the annals of medicine have recorded; because, it furnishes man with a *certain prophylactic* against the most horrible disaster which is incident to his existence.

Of the truth of this discovery and the accuracy of the experiments, on which the statement is predicated, there can be no doubt, "it is affirmed," by the most highly valued medical authority: and M. Gay Lupac has since, reported a case, of the successful application of the same substance to poison by Prussic acid, one of the most active and virulent, known in nature;—and it will, probably, be extended to many others.

It is astonishing that this substance called "chlorine" under the new nomenclature, should have remained so long comparatively at rest: It was discovered by Schle in 1774; and was used, many years ago by England, and I believe France, to purify the infected atmosphere of their ships, jails and hospitals," under the name of "oxy-muriatic gas;" the principle, too, on which it operated, was *then* well understood; and the theory, now differs, in the present case, chiefly in *terms.*

Hydrogen gas is known to constitute, in combination with sulphur, phosphorus or ammonia, the intolerable smells from putrifying substances: deprived of hydrogen, this odour disappears; the analogy was extended to animal effluvia; the conclusion was drawn, that the abstraction of the hydrogen by means of its affinity for the excess of oxygen in the oxy-muriatic gas, would destroy the virus by its decomposition; the result has been satisfactory.

The Chloridians view this same oxy-muriatic gas, as an elementary substance, and call it "chlorine," from its green colour; this "chlorine," then performs the part of the oxygen of the "French theory," and, combining with the hydrogen of the effluvia effects its decomposition and consequent destruction, in the same manner.

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* Mr. Barnett writes that he shall send the package by the January Packet, which has not yet arrived.

As *many poisons* (most probably, all animal *poisons*) are known to contain hydrogen, it is matter of astonishment that analogical induction had not, long ago, advanced the learned inquiries to the present important discovery, "that poisons, animal or mineral, constituted in part, of hydrogen, as far as experiment has gone, are decomposed and rendered innocent by oxy-muriatic gas, or chlorine, as the respective theorists may please to have it.

This article (chlorine) is cheap; and should, in conjunction with the mode of using it, be in the possession of every family, because delay will render it abortive.

It is prepared and applied in the following manner:

Make a strong wash by dissolving two table spoonfuls of the chloruret of lime in half a pint of water, and instantly and repeatedly bathe the part bitten. The poison will in this way be decomposed. It has proved successful when applied within six hours after the animal has been bitten.

I must beg leave to include in this communication, a case of hydrophobia, which may go to remove the vain conceit of some deluded persons, who suppose they are infalliby acquainted with its symptoms.

"*Singular case of Hydrophobia.*—A case is related in the Lancet, a London Monthly Periodical, of a man having died with all the horrors of hydrophobia, and the dog that had bitten him betraying no such symptoms. The statement is from an eminent surgeon, and is well attested by several respectable names.—Soon after the man was bitten, he applied to a medical gentleman, intimating, however, his firm conviction that the dog was not mad. As the dog was evidently sick, the surgeon took the precaution of having him placed in a secure situation, and from day to day watched the progress of his symptoms till he died. From the most attentive observation, the surgeon could not observe the slightest appearance of *rabies;* the animal lay quiet, walked firmly, breathed easily, had no abhorrence of fluids, and caressed his master as usual. His death appeared to be accompanied with pain, and on being opened, the body presented none of those appearances which are generally produced by *hydrophobia.* In about a fortnight after the decease of the animal, the man was taken with the usual symptoms of *rabies,* and died in dreadful convulsions. The case has excited considerable interest, as it proves that hydrophobia, in animals, is not confined to one character, but assumes different shapes."

It is obvious from the above case, that the self confidence of many in their supposed *infallible knowledge* of the symptoms of hydrophobia may endanger their own lives as well as their neighbour's; and this peculiarity of ignorant hardihood, and dangerous infatuation, in this especial matter, I have known to be frequently practised for *mere favoritism* to a *surly, worthless cur,* or a *crook legged turnspit,* which may have been a noisome inmate of a family, perhaps, for years.

It may be now, proper to say, that I have made this communication, because the fact stated, is one of recent discovery; and I have made it the more *full,* connecting with it, the *rationale,* that it may obtain the greater confidence with those, who, though not conversant with chemical science, yet can appreciate the force of reason, in any science;—and I have affixed my name, because an anonymous notice of a fact does not, necessarily, bear with it the verity or responsibility of a name.

I have the honor to be, sir,
Yours, &c.
Joseph E. Muse.

Cambridge, Feb. 18, 1830.

INTERNAL IMPROVEMENT.

ESSAY ON RAIL-ROADS.

(Concluded from p. 390.)

Second Day, 7th October.—"The Novelty" engine of Messrs. Braithwaite and Errickson was this day tried with a load of three times its weight attached to it, or 11 tons, 5 cwt.; and it drew this with ease at the rate of 20¾ miles per hour; thus proving itself to be equally good for speed as for power. We took particular notice to-day of its power of consuming its own smoke, and did not at any time observe the emission of the smallest particle from the chimney.

The weather now became wet, and the railways clogged with mud, which made it necessary to suspend the prosecution of the experiments before the day had half elapsed.

Third Day, 8th October.—Before the commencement of the experiments to-day, it was announced that the judges on reconsidering the card of "Stipulations and Conditions" originally issued, had considered them so defective, as to make it necessary to substitute the following:—

"*Trial of the Locomotive Engines.—Liverpool and Manchester Railway.*

"The following is the Ordeal which we have decided each Locomotive Engine shall undergo, in contending for the Premium of £500, at Rain hill.

"The weight of the locomotive engine, with its full complement of water in the boiler, shall be ascertained at the weighing machine, by eight o'clock in the morning, and the load assigned to it shall be three times the weight thereof. The water in the boiler shall be cold, and there shall be no fuel in the fire-place. As much fuel shall be weighed, and as much water shall be measured and delivered into the tender-carriage, as the owner of the engine may consider sufficient for the supply of the engine for a journey of thirty-five miles. The fire in the boiler shall then be lighted, and the quantity of fuel consumed for getting up the steam shall be determined, and the time noted.

"The tender-carriage, with the fuel and water, shall be considered to be, and taken as a part of the load assigned to the engine.

"Those engines that carry their own fuel and water, shall be allowed a proportionate deduction from their load, according to the weight of the engine.

"The engine, with the carriages attached to it, shall be run by hand up to the starting-post; and as soon as the steam is got up to fifty pounds per square inch, the engine shall set out upon its journey.

"The distance the engine shall perform each trip, shall be one mile and three-quarters each way, including one-eighth of a mile at each end for getting up the speed, and for stopping the train; by this means the engine, with its load, will travel one and a half miles each way, at full speed.

"The engine shall make ten trips, which will be equal to a journey of thirty-five miles; thirty miles whereof shall be performed at full speed, and the average rate of travelling shall not be less than ten miles per hour.

"As soon as the engine has performed this task, (which will be equal to the travelling from Liverpool to Manchester,) there shall be a fresh supply of fuel and water delivered to her; and as soon as she can be got ready to set out again, she shall go up to the starting-post, and make ten trips more, which will be equal to the journey from Manchester back again to Liverpool.

"The time of performing every trip shall be accurately noted, as well as the time occupied in getting ready to set out on the second journey.

"Should the engine not be enabled to take along with it sufficient fuel and water for the journey of ten trips, the time occupied in taking in a fresh supply of fuel and water, shall be considered and taken as a part of the time in performing the journey.

Judges.—J. U. Rastrick, Esq Stourbridge, C. E.—Nicholas Wood, Esq. Killingsworth, C. E.—John Kennedy, Esq. Manchester.

"*Liverpool, Oct. 6th,* 1829."

We shall not go into a question which has been raised, as to the fairness of the judges making any alteration in the conditions originally promulgated. We have a perfect persuasion that they have no other desire than to ascertain in the best manner possible, the relative powers of the competing engines, and shall not quarrel with them for any mere irregularity in the mode of their proceedings. The "new" appears to us to be also, on the whole, a "much amended" edition.

In the original "stipulations and conditions," it was first ordered, that "the load attached to each engine should be three times the weight of the engine;" and then, that the load drawn should be equal to "twenty tons, including the tender and water-tank." To reconcile these contradictory stipulations, and to make provision for the case of an engine carrying (as Messrs. Braithwaite and Errickson's does) its own fuel and water, and therefore not requiring any tender, the matter of weight was thus arranged in the new conditions: "The tender-carriage, with the fuel and water, shall be considered to be, and taken as a part of the load assigned to the engine." And "those engines that carry their own fuel and water, shall be allowed a proportionate deduction from their load according to the weight of the engine." At first sight these seem very fair conditions; and we have no doubt the intention of them was to do equal justice to all parties. When attentively examined, however, they will be found to have this defect—that they serve to place the steam carriage, which uses a great deal of water and fuel, on the same level with one which uses very little; though a dimunition of fuel and water consumed, is one of the most important improvements which can be introduced into a locomotive engine. As the judges could have no other intention than to place all parties on equal terms, they would have done better simply to stipulate, that "the weight of each engine should be considered to consist of its entire working power; that is, of the whole of the machinery, and the whole of the materials necessary for putting it in motion." The matter would then have been placed on its only just basis; and there would have been no chance of any arithmetical mystification in the results.

Another alteration relates to the pressure of steam which was to be allowed. It was at first stipulated that "the pressure of steam in the boiler should not exceed 50 lbs. on the square inch;" but in the new conditions all that was required was, that "as soon as the steam has got up to 50 lbs. per square inch, the engine shall set out on its journey." We think this alteration was a very expedient one. We know not how the pressure could have been constantly kept at just 50 lbs.; and are quite sure that it would have been very unjust to withhold the prize from a competitor, because he might occasionally exceed that maximum.

Nothing was said in the new conditions as to each engine's "effectually consuming its own smoke;" but this omission could only have arisen from oversight; for the act of Parliament, under the authority of which the railway has been formed, orders imperatively that no engine shall be suffered to ply upon it which does not possess this qualification.

Having set these preliminary matters to rights, we now proceed with our narrative of the experiments.

The engine which exhibited on this, the third day, was "The Rocket" of Mr. Stephenson. The trial was conducted in the manner laid down in the "Ordeal" we have just quoted; and it was understood on all hands, that this trial should be considered decisive of its merits.

The engine, with its complement of water in the boiler, weighed 4 tons 5 cwt. and the load attached to it was 12 tons 15 cwt., or, including a few persons who rode, about 13 tons. The journey was 1½ miles each way, with an additional length of 220 yards at each end to stop the engine in, making in one journey 3½ miles. The first experiment was for 35 miles, which is exactly 10 journeys, and, including all the stoppages at the ends, was performed in 3 hours and 10 minutes, being upwards of 11 miles an hour. After this a fresh supply of water was taken in, which occupied 16 minutes, when the engine again started, and ran 35 miles in 2 hours and 52 minutes, which is upwards of 12 miles an hour, including all stoppages. The speed of the engine, with its load, when in full motion, was, at different times, 13, 13½, 14, and 16 miles an hour; and, had the whole distance been in one continued direction, there is little doubt but the result would have been 15 miles an hour. The consumption of coke was on an average about half a ton in the 70 miles.

Fourth Day, 9th October.—To-day a public notice appeared from Messrs. Braithwaite and Errickson, stating, that in consequence of the alterations made in the conditions of the competition, the trial of their engine in the manner prescribed by the new "Ordeal," had, with the approbation of the judges, been deferred till the following day. The 9th became thus a *dies non* in the competition.

Fifth Day, 10th October.—At the appointed hour this morning "The Novelty" was weighed, and three times its weight assigned to it by the judges. The steam was got up in 54 minutes from the time of lighting the fire. The engine then went one trip by way of rehearsal, when a small pipe accidentally gave way, and it was found necessary to send to Prescot, a distance of two miles, to have it repaired.

In the interval, Mr. Stephenson's locomotive engine was run twice down the course and back, making in all 7 miles, but with the whole load taken off from behind, including even the tender-carriage with the water-tank and fuel. Thus *stripped for the race,* "The Rocket" performed the seven miles in the space of 14 minutes 14 seconds, being at the rate of 30 miles an hour! This was a rate of speed nearly equal to the utmost which "The Novelty" had achieved; but as it carried with it neither fuel nor water, it is not a speed which it could have long sustained.

Sixth Day, 13th October.—Mr. Acworth's engine, "The Sans Pareil," was pronounced to be this day ready to exhibit its powers. We were informed that, on weighing it, the judges found it to exceed by two or three hundred weight the maximum of six tons; it was, nevertheless, allowed to start to do 70 miles, in the same manner as "The Rocket," with three times its great weight attached to it—that is, upwards of 1800 tons. It was soon manifested that a very powerful competitor had entered the field. For two hours "The Sans Pareil" kept going with great regularity, and during that time completed upwards of 25 miles. It went occasionally, when at its utmost speed, a mile in 4′ 10″ and 4′ 17″, being at the rate of nearly 15 miles an hour. While thus bidding fair—if not to win the prize, at least to come in second best—a similar accident happened to it as befel "The Novelty;" one of the feed pipes burst, and it was rendered for the time incapable of proceeding.

Seventh, Day, 14th October.—It being generally understood that this was to be a day of a more decisive trial of Messrs. Braithwaite and Errickson's engine—that is, according to the new conditions named by the judges—there was almost as numerous an assemblage of spectators as on the first day of the competition.

A fresh pipe had, it appeared, been substituted for the one which failed on the preceding trial; one or two other parts of the machinery that were in a faulty state, had also been renovated; but the engine, with the exception of some of the flanges of the boiler, being, as Mr. Errickson expressed it, rather *green*, was pronounced in a working state. The load assigned to it by the judges was thus calculated:

	Tons.	*Cwts.*	*qrs.*	*lbs.*
Weight of the engine, without any water or fuel, .	2	15	0	0
Deduct for weight of tank and coke-baskets, and the quantity of water and fuel deemed necessary for a journey of 35 miles, . .	0	16	1	9
Net weight of "The Novelty's" working power, exclusive of the water and fuel, tank, &c. multiplied by	1	18	2	19 3
Given weight to be drawn, dropping the fractional parts,	5	16	0	0

The steam was on this occasion got up to a pressure of 50 lbs. in somewhat less than 40 minutes and at an expenditure of about 15 lbs. of coke.

The engine now started to do the 70 miles for a continuance; but just as it had completed its second trip of three miles, when it was working at the rate of 15 miles an hour, the new cement of some of the flanges of the boiler, yielded to the high temperature to which it was exposed, and the spectators had again the mortification to hear it announced that it was, under these circumstances, impossible the trial could go on.

Messrs. Braithwaite and Errickson intimated to the judges, that as the joints of "The Novelty" which had given way, could not be restored to a working state before the lapse of at least eight days, and the prolongation of the competition was likely to be attended with great inconvenience to many parties, they would withdraw their engine from any further trial, and "leave it to be judged of by the performances it had already exhibited." The manner in which this virtual conclusion to the proceedings has been announced by one of the Liverpool papers, is so distinguished by its fairness and liberality, that we cannot deny ourselves the pleasure of making the following quotation from it on the subject:—

(From the Liverpool Mercury.)

"We may consider the trial of the Locomotive Engines as now virtually at an end. It is much to be regretted, that 'The Novelty' was not built in time to have the same opportunity of exercising that Mr. Stephenson's engine had, or that there is not in London, or its vicinity, any railway where experiments with it could have been tried. It will evidently require several weeks to perfect the working of the machine and the proper fitting of the joints, and under this impression, Messrs. Braithwaite and Errickson have acted wisely in withdrawing, as they have done, from the contest.

"The course is thus left clear for Mr. Stephenson; and we congratulate him, with much sincerity, on the probability of his being about to receive the reward of £500. This is due to him for the perfection to which he has brought the old-fashioned locomotive engine; but the *grand prize of public opinion* is the one which has been gained by Messrs. Braithwaite and Errickson, for their decided improvement in the arrangement, the safety, simplicity, and the smoothness and steadiness of a locomotive engine; and however imperfect the present works of the machine may be, it is beyond a doubt—and we believe we speak the opinion of nine-tenths of the engineers and scientific men now in Liverpool—that it is the principle and arrangement of this London engine which will be followed in the construction of all future locomotives. The powerful introduction of a blast bellows, the position of the water-tank below the body of the carriage, by which means the centre of gravity is brought below the line of central motion, the beautiful mechanism of the connecting movement of the wheels, the absolute absence of all smell, smoke, noise, vibration, or unpleasant feeling of any kind, the elegance of the machinery, in short the *tout ensemble*, proclaim the perfection of the principle.

"In withdrawing so honorably from the competition, Messrs. Braithwaite and Errickson have done themselves the highest credit; and they may rest assured that the scientific world will do justice to their efforts, and look with anxiety to a speedy completion of their elegant and compact engine prepared to bear the fiercest 'ordeal' which the judges may please to direct."

LADIES' DEPARTMENT.

MAXIMS FOR MARRIED LADIES.

The following maxims, if pursued, will not only make the men in love with marriage, but cause them to be good husbands:—The first is to be good yourself. To avoid all thoughts of managing a husband. Never try to deceive or impose on his understanding, nor give him uneasiness, but treat him with affection, sincerity and respect. Remember that husbands, at best, are only men, subject like yourselves to error and frailty. Be not too sanguine, then, before marriage, or promise yourselves happiness without alloy.—Should you discover any thing in his humor or behaviour not altogether what you expected or wish, pass it over, smooth your own temper, and try to mend his, by attention, cheerfulness, and good nature. Never reproach him with misfortunes, which are the accidents and infirmities of life—a burden which each has engaged to assist the other in supporting, and to which both parties are equally exposed—but instead of murmuring and reflections, divide the sorrow between you; make the best of it, and it will be easier to both. It is the innate office of the softer sex to soothe the troubles of the other. Resolve every morning to be cheerful all day; and should any thing occur to break your resolution, suffer it not to put you out of temper with your husband. Dispute not with him, be the occasion what it may; but much sooner deny yourself the trifle of having your own will, or gaining the better of an argument, than risk a quarrel or create a heartburning which it is impossible to foresee the end of. Implicit submission in a man to his wife, is ever disgraceful to both; but implicit submission in the wife, is what she promised at the altar, what the good will revere her for, and what is, in fact, the greatest honor she can receive.

Be assured a woman's power, as well as her happiness, has no other foundation than her husband's esteem and love, which it is her interest by all possible means, to preserve and increase. Study, therefore, his temper, and command your own. Enjoy with him his satisfaction, share and soothe his cares, and with the utmost assiduity conceal his infirmities.

It is a miserable hospitality to open your doors and shut your countenance.

Men, apt to promise, are apt to forget.

Provide for the worst, the best will save itself.

Quality without Quantity is little thought of.

A PETTICOAT BANNER.

The following article alludes to facts which we presume are familiar to most of our readers, and we doubt not its perusal at the present time will give them a keener and pleasanter relish than ever. The heroine of the story we have the honour to be well acquainted with, and common justice requires us to say, that such another "Daughter of '76" cannot be found in "seven cities"—they being in the present effeminate age, "like angels' visits, few and far between."—*Hartford Times.*

"In the speech of Mr. Pearce, on the bill for the relief of Penelope Denny, he mentioned the under petticoat of Mrs. Bailey, of Stonington, instead of Groton, the scene of her patriotic heroism, (Mr. Barber, her next door neighbour, might have corrected Mr. P.) The introduction of so singular an article in a congressional debate, might excite a smile, unless accompanied by an explanation. In 1814, when Commodore Decatur's squadron was blockaded by Commodore Hardy, Stonington was attacked by the enemy, and gained immortal honour by repulsing them. Attacks were also threatened on New London and Decatur, daily, nightly, and hourly, either in earnest, or by way of harassing diversion. On one occasion, the hostile ships were within half an hour's sail of New London. The forts and lines were manned there and at Groton, half a mile distant on the opposite side of the river. In the urgency of the case, two 18 or 24 pounders which were unoccupied, were taken by the citizens not on duty, and mounted on a breastwork, and measures taken to furnish ammunition for them. In the constant state of alarm that existed, the dry goods had been removed from the stores, and the clothing from the houses in the village, for fear of a repetition of its fate in 1781, when it was burnt and plundered. Paper being found insufficient for cartridges, flannel was sought for and very little found. In this critical emergency, with the enemy almost within gunshot, Mrs. Bailey, wife of Captain Elijah Bailey, postmaster, a genuine daughter of '76, who had remained firm at her post, loosened her flannel, bidding them to take it in defence of her country, and if other garments would be of service, they might have them also The petticoat, however, was not made into cartridges by the gallant volunteers, who made a standard of it, declaring they would fight under it to the last drop of their blood, rather than strike it to the enemy. President Monroe, on his tour through Connecticut, was introduced to Mrs. Bailey, and told the story, which was repeated to Lafayette on his visit to that place and seeing the heroine of the anecdote.

MISCELLANEOUS.

(From the American Jouroal of Science and Arts.)

NATURAL HISTORY OF THE MOLE.

Observations relating to the natural history of this animal, have lately been made and published in the Mém. du Muséum d'Histoire Naturelle, XVII. 193, by M. Flourens, from which the following facts have been abstracted. Two moles were put into a vessel with earth at the bottom, and with roots of carrot and horse radish for food. The next morning only one mole was visible, the roots were not eaten, and on searching the earth, the skin alone of the other was found. It was opened throughout its length, beginning at the belly, and the bones and flesh were eaten.

The other mole was put into an empty vessel; it was excessively agitated and active, and appeared to be very hungry. A sparrow without its wing feathers was put to it, which at first pecked at the nose of the mole when the latter approached it, but after two or three times, the mole darted on to the sparrow, thrust its nose into the entrails of the bird, and detached the skin, at the same time devouring the flesh with a degree of fury. Putting a glass with water into the vessel, the mole drank abundantly once, and again during its meal on the sparrow. The presence of the observer did not appear to interfere in the least with the motions of the animal.

The remains of the sparrow being removed, the mole was left to itself; an hour after, it was lying quiet; in five or six hours it was very much agitated, and appeared exceedingly weak, its belly pressed inwards, its sides depressed, its appearance breathless, its snout in continual motion—it appeared starved and ready to die. Another live sparrow was put towards the animal, who this time instantly jumped at it, and began to devour it as before at the entrails. After eating a little, it drank, became of its usual size, and remained quiet. Next morning all but the skin of the sparrow had disappeared, but still the mole seemed hungry and agitated; a frog was put in, the mole instantly fell upon and devoured it, beginning at the entrails as before. The mole was then left until it was very hungry, after which a toad was put to it: the mole instantly perceived it, but each time that it approached the toad, the latter swelled up, and the former turned away his snout as if disgusted. Roots of carrot, cabbage, lettuce, and nothing else, were then put in and left with the mole all night. Next morning the mole was dead, the roots scarcely touched, the bitten fragments still remaining The mole, therefore, is not an herbivorous animal, and only destroys roots to get at the worms, insects, and larvæ within.

Three other moles were put separately, with vegetable food, as leaves, roots, &c. One died without at all touching the food, the other two also died, after slightly attacking the leaves, &c. only in their search for animal food. On the contrary, moles were preserved for a long time, by giving them sparrows and frogs, or even butcher's meat, and sometimes worms, snails, and wood-lice.

Two moles having been put into a room without food, some hours after, they were found the one pursuing the other, not a moment's cessation occurring; by the next morning, the stronger had eaten the weaker.

With regard to the time during which a mole can fast, from ten to twelve hours appear to be the maximum; at the end of that time they die. In three or four hours, they become very hungry, and in five or six hours exceedingly weak. Eating always seems to refresh them perfectly, and, as happens with all carnivorous animals, they are very desirous of drinking when they eat; the contrary is observed with herbivorous animals. It is doubtful whether any other animal exists, which is obliged to eat at such short intervals as this.

From what precedes, it is evident that the mole is essentially a carnivorous animal. A new instance of the admirable relation which connects organization with manners, and functions with organs; and a new proof, that whenever there appears to be a contradiction between one of these things and the other, it is because in the one or the other, the organization or the habits, have been badly observed.

M. Flourens remarks, that it will be interesting to observe in what degree the other *insectivious*, all classed in fact by M. Cuvier in the great family of *Camassicus*, are really carnivorous; and especially what determinate modifications of their digestive organs correspond to the various modifications of their regimen; that of the hedgehog, for instance, which can eat fruits as well as insects, and that of the shrewmouse, which ought to live entirely on prey, if we judge by the shortness of their intestinal canal, which, as in true carnivorous animals, like the tiger, lion, &c., is only about three times the length of the body.

ENGLISH ANNUALS.

The annual cost to the public of these beautiful volumes amounts to 90,000*l*, which is distributed as follows:—Paid to authors and editors, 6,000*l*; printers, 3,000*l*.; engravers, 10,000*l*; copperplate printers, 4,000*l*.; paper makers, 5,000*l*; binders 9,000*l*.; silk manufacturers, 4,000*l*.; leather sellers, 2,000*l*.; for advertising, &c. 2,000*l*; incidental matters, 1,000*l*; publishers' profits, 10,000*l*; retail booksellers, 30,000*l*; one binder alone, Mr. Westley, of Friar street, Doctors' Commons, has 250 persons almost exclusively engaged on those works. This will give some idea of the employment they afford to working printers, silk manufacturers, copperplate printers, paper makers, &c. We have no hesitation in asserting that they give bread to above 2000 persons during a considerable portion of the year.

THE FARMER.

Baltimore, Faidav, March 5, 1830.

☞ The Maltese Jack advertised in the Farmer in January last, has been sold. As many inquiries have been made concerning him, it is deemed proper to make the fact known. By a reference to the advertisement, it will be observed that another Jack and a Jenny have been imported for sale.

Latest Foreign News.

By the Erie, Capt. Funk, from Havre, Paris papers to the 21st January, are received at New York. There is no news worthy of notice by this arrival.

The Paris papers continue to notice the severity of the weather. At the French capital on the 17th, the thermometer, (Reaumur) marked 11 3-10 below zero, and at Belleville, near Paris, it was 15 below zero.—The snow was very deep, and it was apprehended that much mischief would be done in the event of a sudden thaw. In Upper Garonne, several persons had been frozen to death, and the wolves were so voracious that they entered towns and villages, and had taken one life, and dreadfully mangled several individuals.

On the 30th of December, a great quantity of snow fell at Rome, which is a phenomenon in that country. At Naples, after about two months' continued rain, Vesuvius and the adjacent mountains have been covered with snow.

Havre, Jan. 19.—Our market has continued languid for most articles of produce since our last, and the demand for cottons was very moderate, the land carriage being almost impracticable, owing to the severity of the weather. Our stock continues small, the still prevailing easterly winds preventing expected arrivals from your southern ports. The sales for the last ten days are only 1747 bales, of all descriptions. Holders evince no disposition to lower their pretensions. The sales embrace 420 bales New Orleans, at 77 a 105; 961 do. Uplands, Mobiles, Alabamas and Tennessees, at 80 a 93½; 66 do. Sea Islands, ordinary, at 195, and 250 do. Pernams, at 110 a 111, duty paid.

Stock 31st Dec.	17,445 of which were U. States	16,609 bales.
Arrivals since,	4,304	4,304 "
	21,749	20,913 "
Sales since then	3,640	3,245 "
	18,109	17,668 "

Rice will, we have no doubt, go lower, as we remark a total want of orders for the interior, while several expected arrivals are offered for sale.

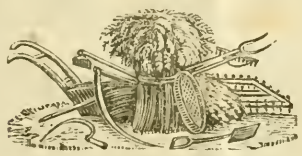
Wheat is declining. In American flour nothing has been doing.

Prices Current in New York, February 27.

Bees-wax, yellow .21 a 23. *Cotton*, New Orleans .10 a .12½; Upland, .9 a .10¾; Alabama, .9½ a 11½. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean —— *Flour*, N. York, bbl. 4.62½ a 4.75 Canal 5.12½ a 5.62½; Balt. Howard st. 4.87½ a 5 00; Richmond city mills, 5.00 a —; country, 4.62½ a 4 75; Alexand'a, 4.62½ a 4.87½; Fredericksburg 4.62½; Petersburg, 4.62½ a 4.75 Rye Flour, 3 50 a ——; Indian Meal, per bbl. 2.75 a ——; per hhd 13.00 a 13.25. *Grain*, Wheat, Genesee, 1.00 a 1.03; Vir. 80 a 90; Rye, North, 65 a 70; Corn, Yel. Nor. .52 a 54; Barley, 68 a .70; Oats, South and North, .31 a .38; Peas, white, dry, 7 bu.——; Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 6.25 a 8.75; prime 5.62½ a 6.25; cargo ——a 4.50; Butter, N. York, .12 a .16; shipping, .6 a 10; Lard, .5 a .6; Pork, mess 11 a 11.75; prime 8.75 a 9.12½

Prices Current in Philadelphia, March 1.

Bees-wax, yellow —. a .20; *Beans*, bushel $1.00 a 1.25; *Beef*. mess 10 a 10.50, prime 8 a 9.00, cargo 7; *Butter*, No 1, 8 a -, No. 2, 6. a--; *Cotton*, New Orleans .10½ a .12, Upland 10. a .11, Tennessee 9½ a .10½, Alabama 9½ a 10½; *Feathers*, South. .33 a .34, West. .30 a .32; *Flax* .7 a .7½. *Flour*, sup. 4.50, fine, 4.12½ a—; Rye 3.25 a 3.75; Corn meal, hds. 11.00 a ——, bls. —— a 2.12½; *Flaxseed*. cask 10.25; bu. 1.30 a ——; *Grain*,—Wheat 85 a 90—Rye .50 a 52, Corn l. c. white, .36 a .38, l. c. yellow, .38 a .40, u. c. round, .40 a .44; Oats .25 a .30, Barley, Pa. .60 a .62; do. East. .— a.—; black-eyed Peas .40 a .50. *Hams*, Jersey .8 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .5 a .6½; *Oil*, linseed, 71 a 72; *Pork*; mess, 11.25 a ——, prime 10.50 a 11; cargo 9.00 a 9.50, *Rice*, 2 50 a 3.00; *Toboeco*, Kentucky .5 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .18 a .22, half blood .26 a .—; three quarters blood .28 a .32, full blood 28 a .32; unwashed, generally 6 cents less, according to quality.



AGRICULTURAL REPOSITORY.

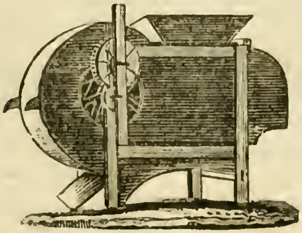
SINCLAIR & MOORE,

Pratt street Wharf, Baltimore,

Have received their supplies of fresh GARDEN SEEDS, many of which have been raised in their Horticultural Establishment near this city—others have been received from regular seed raisers, and are warranted pure and genuine, and specimens of each kind can be seen growing at their store

Also on hand, Clover, Timothy, Orchard Grass, Herds Grass and Lucerne SEEDS; Seed CORN of a good kind for yield; Spring RYE and Mercer POTATOES; Early Manley and Kidney Potatoes.

Also on sale, a lot of Ribban SUGAR CANE, which is the best kind to stand the frost, and which will afford an opportunity to those who wish to make experiments in its culture to procure it. It may be seen by the report of the Agricultural Society of Baton Rouge, recently published in the American Farmer, that the average product per acre is 1000 pounds of sugar, and 25 gallons of molasses.



In store, an extensive assortment of AGRICULTURAL IMPLEMENTS, among them are their IMPROVED WHEAT FANS and CORN SHELLERS, for several years used to general satisfaction, Improved Cylindrical STRAW CUTTERS, together with several other kinds at lower prices.

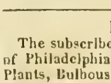
The assortment of PLOUGHS is extensive, and embraces most of the Improved kinds, and are adapted to the different kinds of land, and the various purposes of the farmer.

They have also acquired the right to make and vend WARREN'S PATENT THRASHING MACHINE, in the State of Maryland, (Cecil county excepted,) and they will be furnished for that county by the purchaser obtaining from the owner of the right for the county, privilege to use them there, and an allowance made for the cost of the privilege. They have some ready made, which they will sell with or without horse power. The horse power, as well as the Thrashing Machine, is portable, and may he set up in a field or barn, and removed from place to place at pleasure. The cost of the machine will be $50—the horse power $50. This machine is adapted to the convenience of most farmers, requiring only two men, two boys and one or two horses. For its performance we refer to the following certificate of a gentleman who has had one set up on his farm, in the vicinity of Baltimore.

Rockland, *Balt. county, Feb.* 6, 1830.

Messrs. Sinclair & Moore:—Gentlemen, I have pleasure in communicating to you the result of a trial on my place, of the Thrashing Machine invented by Edmund Warren, of New York, sent to me for that purpose. In nine hours and eighteen minutes it thrashed out eighty-five and a half bushels of wheat, equal to 9½ per hour, and in seven hours and forty-two minutes, it thrashed out one hundred and eighty-three and a half bushels of oats, equal to 23 bushels per hour. The grain in both cases, was gotten out more perfect than by any machine I ever saw work; the experiment throughout, had my personal attention, and from the observations then made, I became satisfied that under favourable circumstances, from ten to twelve bushels of wheat may be thrashed per hour. Two horses were used in each operation, but the draught was very light for them.

I am, gentlemen, very respectfully, your obt. servt.
SAM'L M'CULLOH.



Their Nursery of FRUIT and ORNAMENTAL TREES, is in a flourishing condition, and contains many varieties of Apples, Peaches, Pears, Cherries, Plums, Apricots, Nectarines, Figs, Grape Roots and Cuttings, Gooseberry, Strawberry, Raspberry and Currant Plants. Catalogues to be had gratis at the store or nursery.

FOR SALE,

A Jack and Jenny, imported from Malta, by Capt. Downes of the Navy, will be sold together or separate, at a reasonable price. Enquire of the Editor of the American Farmer.

HORTICULTURAL.

The subscriber, agent for Messrs. D. & C. Landreth of Philadelphia, will receive orders for all kinds of Plants, Bulbous Roots, Fruit Trees, &c. cultivated by them, which will be carefully packed, and delivered in Baltimore, in good order, *with special care as to kind and quality*. He also keeps constantly on hand the Messrs. Landreth's superior Garden Seeds, all put up by them, and each paper bearing their warranty, and delivered here at wholesale or retail at the Philadelphia prices. Also on hand, a good supply of Clover, Lucerne and Orchard Grass Seeds of fine quality; and will shortly be supplied with other Grass Seeds. Also in store 500 bushels of Northern Potatoes of different kinds, that can be recommended for seed. Likewise, a few Black and Golden Peas from Germany.

JONATHAN S. EASTMAN.
No. 36, West Pratt street.

P. S. Agents for the above, where gentlemen can leave their orders.

Messrs. D. & C. Landreth, Philadelphia.
Lambert Reardon, Easton, Md.
Barr, Auchincloss, & Co. New York.
David J. Burr, Richmond, Va.
Randolph Webb, Raleigh, N. C.
J. C & C. Burckmyer, Charleston.
Dr. W. W. Anderson, Statesburg, S. C.
J. G Herbert, Savannah, Geo.
Stephen Duncan, Esq. Natchez, Miss.

ALMANAC.

1830. March.	Sun. Rises.		Sun. Sets.		Length of days.		Moon sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 6	6	19	5	41	11	22	4	30
Sunday,........ 7	6	18	5	42	11	24	5	10
Monday,....... 8	6	17	5	43	11	26	5	45
Tuesday,...... 9	6	15	5	45	11	30	rises.	
Wednesday,.. 10	6	14	5	46	11	32	6	55
Thursday,..... 11	6	12	5	48	11	36	7	46
Friday,......... 12	6	11	5	49	11	38	8	46

Moon—Full Moon, 9th, 10h. 30m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There is little or no change in the market, the spring business having not yet fairly opened. The demand for flour is rather more dull than last week—sales are making at quotations. The wagon price of Howard street is $4.25. Beef is quite dull, and our quotations embrace extreme rates. It will be seen that we have quoted the prices of American pig and bar iron.

Tobacco.--Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 13.00.—Crop, common red, 4.00 a 5.00; brown and red 5.00 a 7.00; fine red, 8.00 a 13.00; wrappery, suitable for segars, 7.00 a 12 00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 20 hhds Ohio tobacco.

Flour—best white wheat family, $5.50 *a* 6.00—super. Howard st. 4.31 *a* 4.37½—city mills, 4 *a* 4.25;-Susquehanna, ——. Corn Meal, bbl. —— *a* 2.25—Grain, best red wheat, .75 *a* .80; best white do. .85 *a* .90; ordinary to good, .70 *a* .75—Corn, white, .30 *a* 32; yellow .33 *a* .34; Rye, .48 *a* 50: Oats, .30 *a* .—— Beans, 90 *a* 1.00—Peas, .65 Clover seed, 5.25 *a* 5.75 —Timothy, - *a* 2.50-Orchard Grass, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ *a* —— lb.—Barley, ——Flaxseed, 1.06 *a* 1.12½-Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12 —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .— *a* .—; in bbls. — *a* 23½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.—Hemp, Russia, ton, $215 *a* 220; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6.00 *a* —— No. 2, 5.57 *a* ——No. 3, 3.75——Bacon, hams, Balt. cured, .9 *a* .9½—Feathers, .30 *a* 31—Plaster Paris, cargo price per ton, 5.00 *a* 5.25; ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, .4.00 *a* 5.00—Pine Wood, by the vessel load, 2.25—Oak Wood, 3.12½—Hickory, 4.25.

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Examples of Good Farming, shewing the advantages of Thorough Culture in producing great crops—The Cotton Crops in South Carolina—On the proper Size of Trees for Transplanting—A Preventive against the Fly injuring Carnations—Appointment of the President, &c. of the Massachusetts Horticultural Society as Honorary Members of the Paris Horticultural Society—List of Premiums for the ensuing year of the Massachusetts Horticultural Society, for Ornamental Trees and Flowers—On the Use of Chlorine as a preventive of Hydrophobia, by Dr. Joseph E. Muse—Essay on Railways, concluded, Trial of the Locomotive Engines on the Liverpool and Manchester Railway, for the prize of 1500—Maxims for Married Ladies—A Petticoat Banner—Natural History of the Mole—English Annuals—Editorial—Latest Foreign News and Prices—Prices in the New York, Philadelphia and Baltimore Markets—Advertisements—Almanack for the week.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

Kingsessing, Feb. 22, 1830.

J. S. Skinner, Esq.

Sir,—I have the honor to enclose you a copy of the memorial presented to Congress, from the farmers and graziers of the county of Philadelphia, with a request from the Committee, that you will, if convenient, give it an insertion in your valuable paper. Very respectfully, yours, &c.

Robert Carr.

P. S. In the list of importations for 1828, amongst other articles,[*] which we can readily cultivate, I observe the article *ginger*, of which the quantity imported in that year amounts to 24,000 lbs. The *Zingiber officinale*, (true, or narrow leaved, ginger) is a native of the East Indies, but will grow well in Pennsylvania, or any southern state. It requires no more care in the cultivation than the common potato. I planted some roots in the second week of May last, and in the middle of October took up the produce, which were perfectly ripe and of good size. "The roots are taken up when the stalks fade, and being first washed and scalded, are afterwards dried in the sun;—this forms black ginger. The white sort is not scalded, but only washed and dried. When the root is to be preserved in syrup, it is taken up and scalded before fully grown. After steeping and washing in water, it is put in jars, and covered with a thin syrup."

MEMORIAL.

At a meeting of the farmers and graziers, of Philadelphia county, and of some other adjoining counties, held at Germantown, on the 16th February, 1829, according to previous notice; *Samuel Castor*, being called to the chair, and *Edmund Green*, appointed secretary, the following resolutions were presented by a committee nominated for the purpose, and accepted by the meeting:—

Resolved, That we think it advisable to represent the agricultural interest of the country to the consideration of our general government, upon a suitable occasion, at the next session of Congress, and that we respectfully invite the agriculturists of other portions of our state and of our sister states, to hold similar consultations for the general welfare of our profession; and, that a more ready and advantageous interchange of sentiment may be made between different portions of our country.

Resolved, That a committee of thirteen be appointed to draft a memorial of the object of our meeting, and to make such arrangements as may be best calculated for the promotion and support of agricultural industry, with power to fill vacancies, and to act also as a committee of correspondence.

Resolved, That these proceedings be signed by the chairman, and attested by the secretary; and that the editors of newspapers throughout the Union be solicited to give them publicity.

Samuel Castor, *Chairman.*

Edmund Green, Secretary.

—

Memorial to the Senate and House of Representatives of the United States of America, in Congress assembled.

This Memorial respectfully represents—that the interference in our markets of foreign provisions and grain has, for several years, attracted the attention of farmers; and although such competition was considered limited and occasional, an investigation of the subject proves that the agriculturists suffer to a very considerable extent, by the intervention of foreign productions; and a comparison of the rates of duty imposed by our national government upon agricultural products, well adapted to our soils, and capable of employing extensive capital and labour, with those affixed to various articles manufactured in the country, of which we are in the constant and necessary consumption, convince us that farmers are not equally protected in their industry with others of their fellow citizens of different trades and professions. The peculiar character of the employments of farmers—their necessary constant personal superintendence—the difficult means of communication, from the extended space which they occupy—notwithstanding their respectability in numbers and character, have prevented that interchange of opinion and union of effort which others may more happily employ; and the farmers, assiduously attentive to the cultivation of their crops, and the care of cattle—frequently also called upon to occupy themselves in public and local business, and generally unacquainted with the commercial arrangements affecting their interests, have not hitherto made that representation of their strength which we now believe essential to their welfare.

A state of almost universal peace has much contracted the extent of the profitable exportation of our produce;—we cannot depend upon a foreign demand—we must look for our advantage in an increasing home market, and in a greater variety of employment for our citizens. We believe, that the interests of our common country are connected with a more immediate intercourse between the different sections of the United States, and we look to this as a bond of union, by interest and kind feeling to be best continued, by such measures as shall induce us to place mutual dependence upon each other for those supplies which nature has appointed to our different soils and climates, and that the extent of our territory will give ample scope to a much greater diversity of industry, and greater diffusion of wealth and prosperity among our own citizens, as well as greater protection during the calamities of a war, than we can hope from foreign dependence; and we trust to our liberal institutions to guard us from those difficulties and dangers which have been too hastily charged upon the protective system, which is one, in our instance, of absolute self-defence, but which we desire to see equally affecting all classes of our citizens, and every section of our land. We wish that every industry capable of being exercised at home should be encouraged, to give a profitable, varied, and necessary occupation to our citizens, and their families; and we consider a just and properly regulated protection as the most sure and permanent pledge of the success, equally of the farmer, planter, manufacturer, and merchant. As farmers may justly be denominated the great body of consumers, we think ourselves entitled to a rate of protection and regard equal to that offered to any other class.

In order to exhibit the protection which many articles we necessarily use, do now receive, we subjoin the following statement:

Blacksmiths and Manufacturers in Iron, and of Castings, &c. have, on

Pitchforks, iron stoves, hatchets, shears, seives, hoes, saws, ploughs, iron hoops, iron wire, and all manufactures of iron, generally, a duty of 25 pr. ct.

Bridle bits, scale beams, and axes, 35 per cent.

Straw and hay knives, scythes, shovels, spades, and sickles, 40 per cent.

Taylors and Clothiers, on

Ready made clothing and wearing apparel, 50 per cent.

Gun-makers, on—Fire arms, 30 per cent.

Wool and Cotton Manufacturers, on

All general manufactures of cotton, 25 per cent.

Woollen stockings and blankets, 35 per cent.

Hearth rugs, 33⅓ per cent.

All general manufactures of woollen, 40 to 50 pr. ct.

Curriers, Boot and Shoemakers, Saddle, Harness, and Whip Makers, on

Hides of leather, whips, saddles, and harness, generally, 30 per cent.

Laced boots, $1 50 per pair.

Cabinet Makers, on—Cabinet wares, 30 per cent.

Carriage and Chair Makers, on

Carriages and chairs, 30 per cent.

Tobacconists, on—Segars, $2 50 per thousand.

Clock Makers, on—Clocks, 25 per cent.

Hatters, on—Fur and wool hats, 30 per cent.

Umbrella Makers, on—Umbrellas, 30 per cent.

Besides a variety of others not necessary to be mentioned.

We do not notice these with a disposition to object; we are not aware that we pay higher for most of these articles than before the increase of the rates of duty, and we are satisfied that some of them are cheaper than before, and every day improving in quality from the industry, talent, and perseverance of our workmen; we well recollect the character of the first articles manufactured during the late war, how very inferior to those now made, and that from the scarcity of the various implements required for our uses, we were exposed to high prices, caused by the want of proper competition at home, and the unskilfulness of our artizans, who have improved in proportion to the protection afforded them; but we solicit attention to the long list of importations from foreign countries, of those products which the soils and varied climates of our country and industry of our agriculturists may be most advantageously employed in providing, and which their intelligent and active enterprise will afford, at as cheap a rate as they can be had elsewhere, after a short delay necessary for the perfection of a due system of economy and management, which is a small sacrifice compared with the results to the community at large.

During the years 1826 and 1827, the value of the following importations into the United States, is stated by the report of the Secretary of the Treasury.

Of raw hides and skins, duty free,	$4,305,875
Wool, above the value of 10 cts. per lb.	576,760
Do. not exceeding 10 cts. per lb.	281,492
Tallow candles, 242,686 lbs.	17,508
Tallow, 1,360,419 lbs.	93,442
Cheese, 81,823 lbs.	11,800
Beef and pork, 946,987 lbs.	82,032
Butter, 5,233 lbs.	728
Bristles, 374,083 lbs.	134,502
Hemp, 138,682 cwt.	1,187,611
Wheat, 4,512 bushels,	5,910
Oats, 13,820 do.	4,110
Potatoes, 112,044 bushels,	48,684
Vinegar, 77,203 gals.	16,607
Salt, 8,385,209 bush.	1,212,259
Rags, free,	251,573
Raw silk,	827,496
Opium, (for 1827 only)	887,000
Wines,	3,402,223
Foreign spirits from grain	473,236
Do. do. other materials	2,765,912
Beer, porter, and ale,	141,808
Coal,	287,989
	$15,961,502

Note.—The following importations affect the Southern agriculturists, viz:

Molasses,	$5,657,710
Olive and other oils,	157,000
Sugar, brown and white,	9,878,992
Fruits,	808,944
Spices,	917,298
Indigo,	3,072,608
	$20,502,544

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[*] Of figs, the quantity imported in 1828, amounts to 742,027 lbs.
Almonds do. do. 655,953 lbs.

Besides various dye stuffs, for which there is an increasing demand; barley, (of which, in one year, 20,000 bushels were imported, at 15 per cent. duty) honey, bees wax, feathers, quills, soap, lard, mustard, horns, willows for baskets, fruit trees, nuts, &c. &c. which are not specified in the report as items, being free, or having an ad valorem duty.

We are influenced by no political feelings, and disclaim sectional excitement; we feel the justice of our claim; we respect the difference of opinion which may exist on this subject; but we are firm in viewing the general advantages which will result from a greater regard to the interests of the American farmer and planter; and we look with regret at the state of that portion of our countrymen engaged in agriculture, who have certainly, in comparison with their number and exertions, borne the pressure of all the measures hitherto pursued, and may now claim to participate in whatever system of encouragement may be decided on for the general welfare.

We, therefore, most respectfully urge the Senate and House of Representatives of the United States in Congress assembled, to regard the interests of this portion of their fellow citizens, and make such alterations and additions to the duties now imposed upon articles of agricultural produce as may aid and support the large portion of citizens whose welfare depends upon their protection.

Oxford.—George Caster, Charles Paxson.
Lower Dublin.—John Blake, J. H. Gibbon.
Byberry.—Benjamin Walmsley, James Thornton.
Moreland.—George Breck, Franklin Comly.
Bristol.—John L. Williams, Isaac Michener.
Blockley.—Nathan Jones.
Kingsessing.—James Bartram, Robert Carr.

Committee appointed at a meeting of Farmers and Graziers of Philadelphia county, held at Germantown, on 16th February, 1829.

(From Loudon's Encyc. of Agriculture.)

OF THE MANAGEMENT OF LANDS PERMANENTLY UNDER GRASS.

(Continued from p. 378.)

In *manuring upland meadows*, the season, the sort, the quantity, and the frequency of application are to be considered.

With regard to *the season at which manure should be applied*, a great difference of opinion prevails among the farmers of England. In the county of Middlesex, where almost all the grass lands are preserved for hay, the manure is invariably laid on in October, while the land is sufficiently dry to bear the driving of loaded carts without injury, and when the heat of the day is so moderated as not to exhale the volatile parts of the dung. Others prefer applying it immediately after the hay-time, from about the middle of July to the end of August, which is said to be the "good old time;" and if that season be inconvenient, any time from the beginning of February to the beginning of April. It is, however, too common a practice to carry out manure during frosty weather, when, though the ground is not cut up by the carts, the fertilizing parts of the dung are dissipated, and washed away by the snow and rains before they can penetrate the soil.

There is scarcely any sort of manure that will not be useful when laid on the surface of grass grounds; but, in general, those of the more rich dung kinds are the most suitable for the older sort of sward lands; and dung, in composition with fresh vegetable earthy substances, the more useful in the new leys or grass lands. In Middlesex it is the practice of the best farmers to prefer the richest dung they can procure, and seldom to mix it with any sort of earthy material, as they find it to answer the best in regard to the quantity of produce, which is the principal object in view; the cultivators depending chiefly for the sale of their hay in the London markets. It is the practice to turn over the dung that is brought from London in a tolerable state of rottenness, once chopping it well down in the operation, so as to be in a middling state of fineness when put upon the land. It is, necessary, however, that it should be in a more rotten and reduced state when applied in the spring than when the autumn is chosen for that purpose.

Some interesting experiments have been made with different kinds of manure, for the purpose of ascertaining their effects, both in regard to the quantity and quality of the produce on different kinds of land. Fourteen lots, of half an acre each, were thus manured, and the grass was made into hay, all as nearly alike as possible. The greatest weight of hay was taken from the lot manured with horse, cow, and butcher's dung, all mixed together, of each about an equal quantity. It lay in that state about two months; and was then turned over, and allowed to lie eight or ten days more, after which it was put on the land before it had done fermenting, and spread immediately. And to ascertain the quality of the produce of the different lots, a small handful from each was laid down on a dry, clean place, where there was little or no grass, and six horses were turned out to them one after another. In selecting the lots, there seems to have been little difference of taste among the horses; and all of them agreed in rejecting two lots, one of which had been manured with blubber mixed with soil, and the other with soot, in both instances laid on in the month of April preceding.

The proportion of manure that is necessary must, in a great measure, depend upon the circumstances of the land, and the facility of procuring it. In the district of London, where the manure is of a very good and enriching quality, from its being produced in stables and other places where animals are highly fed, the quantity is usually from four or five to six or seven loads on the acre, such as are drawn by three or four horses, in their return, from taking up the hay to town.

Manure is laid on *at intervals of time* more or less distant, according to the same circumstances that determine the quantity of it. Though there are some instances of hay grounds bearing fair crops every year during a length of years, without any manure or any advantage from pasturage, except what the after-grass has afforded; yet, in general, manure must either be allowed every third or fourth year, in the land depastured one year, and mown the other; "or what is better, depasture two years and mow the third." A succession of hay crops without manure, or pasturage, on meadows not irrigated, is justly condemned by all judicious farmers, as a sure means of impoverishing the soil.

Bog meadows are the least valuable of any; they are of two kinds, peat bogs and earthy bogs. The first are situated in hollows or basins, which, from having no natural outlet for water, and not being so deep or so plentifully supplied with that element as to constitute lakes, become filled up with aquatic plants and mosses. By the decay of these after a certain time, and the drainage and culture of art, a surface of mossy soil is formed on which some of the inferior grasses may be sown or will spring up naturally. In warm moist climates and where the mould of the bog is rich, fiorin or Timothy grass may be found to answer; but in general the woolly soft grass and cock's-foot are resorted to, unless indeed lime be applied, or a coating of sand or earth, in which cases the clovers and better grasses will sometimes answer. These bogs are in general too soft for pasturing any other animals than sheep.

Earthy bog meadows are situated either in hollows or on slopes. They are formed by an accumulation of water in the subsoil, which not finding a free passage in any one point, spreads under and filtrates upwards through a considerable extent of surface. The grasses on such meadows before they are drained, are chiefly of the sprot or juncus kind; but by draining the quality of these is improved, and better kinds appear. Such meadows yield a considerable produce of coarse hay; they abound chiefly in cold hilly districts devoted to breeding.

The culture and management of bog meadows differs in nothing essential from that of the river kinds. A lighter roller is used in spring, the greatest care is taken in eating down the latter grass, whether by small cattle or sheep; and in some cases, in very dry weather in summer, the main drains are dammed up for a few weeks in order to stagnate the water, and supply the soil with moisture. No manure is ever given unless in the case of some cultivated peat bogs, which are dressed with earthy or saline mixtures.

HORTICULTURE.

CULTURE OF SILK.

[We comply with pleasure, with the request of the Secretary to the Philadelphia Silk Society, to publish the subjoined address. That Society deserves the thanks of the community for its exertions in the attempt to introduce the culture of Silk into the United States; and, although they have not been met by a corresponding spirit on the part of those for whose benefit they were labouring, it is hoped they will persevere in the good work. We are sorry to observe somewhat of a cooling off in the public mind on this subject, and would recommend to the Philadelphia Society, and those spirited individuals who have done so much to introduce this new branch of agricultural industry, to increase their efforts and persevere for a short time longer, when they may indulge the expectation of seeing their labours crowned with success.]

Address of the Pennsylvania Silk Society to the Public.

In September last, the Society announced that they had engaged a person fully competent to the reeling of silk from cocoons, and making sewing silk, offering, at the same time, to teach those arts, and to purchase cocoons. The experiment was intended to redeem the pledge, made last year by the Society to that effect, and in the hope that some of our citizens in Pennsylvania, New Jersey and Delaware, upon whose farms the native red, or the white mulberry trees grew, would avail themselves of the opportunity of acquiring the desirable, and to them, important knowledge; and that others, favourable to its diffusion, would enable some females to obtain it, whose pecuniary means would not permit them to defray their expenses in the city during even the short time required for its acquisition. In these expectations, the Society have been disappointed; for although the notice was inserted in most of the city newspapers, with a request that the editors of country prints would copy it, no application was made on the subject from any quarter whatever. This neglect is regretted, because nothing but the knowledge that might have been acquired, is wanting, to enable those who have mulberry trees, not only to supply their families with the sewing silk required by them for their own use, but to make enough to become an object worthy of attention in a pecuniary point of view, without in the least interfering with their usual domestic duties. It has been frequently stated, that in three counties of Connecticut, where the culture of silk has been largely attended to, for the last forty years, a great part of the circulating medium consists of sewing silk, and that storekeepers freely barter their goods for it. What then is to prevent the example being followed in Pennsylvania, New Jersey, and the states south of them? The Society are satisfied, that by an extensive culture of the mulberry tree, the manufacture of sewing silk may be rendered an important source of profit to our farmers, whose wives and daughters may thereby be enabled to "gather up fragments" of time which might otherwise be lost. By the use of one or more of the simple frames described and figured in the fifth chapter of the Manual on Silk, published by Congress,* the business of feeding the silk worms becomes a pleasing occupation; whereas, when they are raised on boards and tables, it is exceedingly troublesome.

As profit did not enter into the views of the Society, more than double the real value of the best cocoons was given for them; but notwithstanding this encouragement, a few pounds only were offered for sale; and, with a single exception, these were of a very inferior quality, being old, and the greater part not more than one half the proper size, and slightly covered with silk. The two last defects proceeded, without doubt, from the worms not having been regularly supplied with food. Some parcels were so bad, that the purchase of them was declined. The inferiority of those actually reeled off, gave great trouble to the industrious, persevering, and excellent operative† employed by the Society, owing to the frequent breaking of the fibres, and the rapid exhaustion of the cocoons. Three times the quantity of silk obtained from them, and in a third of the time, might have been reeled, had they been of the first quality. The skill of the artist, however, overcame the difficulties that she had to encounter, and a few pounds of excellent sewing silk were made, part of which may be seen at Mr. Ashmead's, in Walnut street, east of Dock street. This silk has been tried by four of the workmen of Messrs. Charles C. Watson & Sons, who have certified as to its being equal in quality to any imported, and by Mrs. Hogg, one of the most fashionable ladies' dressmakers in Philadelphia, who, in addition to an expression of a similar opinion, says, that in one respect, it even possesses an advantage of foreign silk, in not twisting, and forming knots, technically "kinking."

In reeling the silk from the cocoons, the Italian reel, imported by a member of the Society, was employed. (See the Silk Manual.) It worked admirably: the knowledge of its operations is easily acquired, and is recommended to all who wish to engage in the business of reeling. It can be made by any turner for $12.

"Mr. Swayne's apparatus consists of a wooden frame, four feet two inches high, each side sixteen inches and a half wide, divided into eight partitions, by small pieces of wood, which form grooves, in which the slides or feeding frames run, and are thus easily thrust in or drawn out of the frame. The upper slide is of paper only, and designed to receive the worms as soon as hatched; the two next, are of catgut, the threads about one-tenth of an inch distant from one another. These are for the insects, when a little advanced in size; the four lower ones are of wicker work, the openings through which the dung is to fall being about a quarter of an inch square. Under each of these, as well as under those of catgut, are slides made of paper, to prevent the dung of the worms falling on those feeding below them. Mr. Swayne afterwards found that netting may be substituted with advantage, in the room of wicker bottoms. The meshes of the netting were about half an inch square.

"The caterpillars are to be kept on the second and third feeding slides, until their dung and litter do not readily fall through, and then to be removed to the feeding slides with wicker bottoms, and fed thereon, till they show symptoms of being about to spin. Each wicker feeding slide will afford sufficient room for five hundred worms, when grown to their full size.

"In order to give room for an increased stock of caterpillars, spare slides should be made to fit the three upper apartments with wicker bottoms, (or, in preference, with bottoms of split rattans,) which may be used for full grown worms.—See the Silk Manual, chapter 5.

The slides of the feeding frames of Messrs. Terhoeven, of Philadelphia county, are four feet square, and are fixed to upright posts; they have two sets in one room, with passages between and around them. This size enables a person to reach any part of them. Over the slides, are frames, placed on cleets, and filled with split rattans, at proper distances, to permit the litter to fall through.

Benjamin R. Morgan, *President.*
Joseph Hemphill, *Vice President.*
Mathew Carey, *Secretary.*
Nathan Bunker, *Treasurer.*
F. Dusar,
James Mease,
Joseph Ripka,
J. M'Cauley. } *Acting Committee.*

Philadelphia, Jan. 1, 1830.

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[*] These were distributed among the members of Congress of the session of 1827, 28—for general circulation: 8000 copies were printed.

[†] Miss Mary Brush, of Bedford, West Chester county, New York.

PRUNING GRAPE VINES.

J. S. Skinner, Esq.

It seems that Mr. Herbemont has been blamed for recommending to re-prune grape vines, after the young shoots have been killed by frosts; but such practice is recommended in all the French books that I have seen: it is doubtless a correct practice in France, but wrong in our warm climate, as the following will show:—

April 2nd, 1828, vine shoots from 3 to 16 inches long—finished unbudding the first time.

April 5, heat at sun rise 31¼ degrees, ice and hoar frost—wind W.
Aprtl 6, do do 35 high wind, N.W.
April 7, do do 26 great frost——smoky—wind N.W.
April 8, do do 30 same.

All the young shoots of grape vines, and of the trees in the forest were killed. I re-pruned some of my vines, and the sap flowed profusely, on which I discontinued the pruning, and rubbed off the dead shoots. The vines re-pruned died down to the old wood, generally, and yielded very little fruit; and those that had the dead shoots rubbed off yielded about a fourth of a crop of grapes. M.

(From the Annales D'Horticulture.)

Information on the Transplantation of Plants and Shrubs in full verdure;—by M. L'Abbe Berlese.

Hitherto, I do not know, that any method has been discovered, of transplanting in full verdure a rare plant, without its being injured by this removal. All the modes which have been indicated, are confined to taking up with the roots, as much earth as possible; but no process has been devised, by which this shall remain attached to the roots, so that the plants can be transported from one place to another with safety. It is known, that this is sometimes successfully done, by placing a cask without a head over the plant, and sinking it into the earth by repeated blows, until the lump about the roots is detached and retained within the cask; but if the roots are extended horizontally, the edges of the cask, cut or injure them; besides, the violent blows given to the cask, to sink it into the earth, loosens that about the roots, in proportion to the depth it is settled, and the plant withers, and at last perishes.

An experiment, which has been several times repeated, has convinced me, that a plant growing in the open ground, and especially a rare shrub, or small tree of any kind, even those which, from the disposition of their roots, can never be taken up, with a ball of earth adhering to them, may be transplanted with facility; this mode is easy, not expensive, and can be practised by every one.

Suppose, it is desirable to transplant a sweet brier, which has been long budded, with a stock four, six, ten, or twelve feet in height, in full verdure, and even in bloom, isolated, or planted against a wall. If the sweet brier is over four feet high, I fasten it to a strong stake; I then trace upon the earth, a circle nearly double the diameter of the lump of earth, which I wish to retain upon the roots, and commence digging a trench round this prescribed mass, and when it is ascertained that there are no roots, which would retain it in the ground, I fill the trench with liquid plaister of paris. This plaister envelopes the lump of earth round the plant, and secures it immediately, as if it were in a box. When the plaister has consolidated, and is about half dry, I take up the plant. and remove it where I choose.

I transplanted, last summer, three large budded sweet briers, a Magnolia cordata, a Daphne collina, and three cypress trees, six feet high, which had been set out five years; all these succeeded perfectly; the roses, which were in flower, and full of buds, continued to bloom after transplantation, and to grow as if they had not been removed.

GRAPE VINES.

We have pleasure in stating, that the grape-vine cuttings ordered by the direction of our agricultural board at their late annual meeting, from the vineyard of Dr. N. Herbemont of Columbia, in South-Carolina, have been received. Such as were desired to be sent to other places than Raleigh, were so addressed, and we trust will duly reach their destination. Such of the agricultural societies as gave no special directions, can obtain their portion of the cuttings, by applying to the secretary of the board here.

The following is a list of the vines received, with a description of their peculiar properties:—

1. Bordeaux Table Grape.
2. Long's Arkansas.
3. White Melier.
4. Burgundy Miller.
5. White Malaga Malmsey.
6. White Olivette.
7. Isabella.
8. Arena (a native.)
9. Lenoir.
10. Bland's Madeira, or Rose Grape.
11. Herbemont's Madeira.

The first named, was brought from France (without a name) by the late Gen. Davie. He got it as the best table grape. Some call it "Hungarian." It is a great bearer, but does not make good wine.

The 2d is spoken very highly of by the writer of Mr. Long's expedition.

The 3d is an excellent grape for the table and for wine. It ripens early.

The 4th is well known as an excellent wine grape.

The 5th is a most excellent table and raisin grape. It resembles the Malaga which comes to us in jars. It is not so large, but very superior. This, as well as the 3d and 4th may be planted closer than the others, as they do not grow so large, and ought to be placed by themselves.

The 6th is an excellent large oval grape.

The 7th is too well known to need description.

The 8th is a native, which Dr. Herbemont has had some years in cultivation, by which it is much improved. It makes an excellent wine, when two or three years old. He calls it "Arena," because it is a native of our sandhills.

The 9th called "Lenoir," from the name of the gentleman who first cultivated it on the High-Hills of Santee. It is a vigorous vine, makes an excellent red wine. Its fruit ripens in July, and never rots.

The 10th is excellent for the table, for raisins, and for wine.

The 11th. If this was not, in wet seasons liable to rot, it might be unhesitatingly pronounced the best grape, in every respect, in the country. The wine it makes resembles the best kind of Madeira. It is one of the most luscious grapes for the table, and the most juicy, yielding upwards of 4½ gallons of juice from every bushel of fruit. It is also a great bearer, and a vigorous vine.

As the cuttings ought to be planted during the month of March, the sooner they are applied for the better.

It is believed there will be a few spare cuttings, after supplying the several Agricultural Societies, which will be gratuitously distributed to such gentlemen as may be desirous of promoting the culture of the vine in this state.

Dr. Herbemont has favoured us with some valuable directions for grafting and cultivating the vine, which we will give to our readers hereafter.

[*Raleigh Register.*

ON PRUNING GRAPE VINES.

West Point Vineyard, March 4, 1830.

J. S. Skinner, Esq.

Sir,—In your valuable paper of the 26th of February, an article was given by Mr. A. Parmentier, on the manner of cutting the vines and plastering them, to prevent their bleeding in the spring.

As one of your subscribers I take the liberty to address you the results of my experience on that subject, with the hope to be useful to some of your readers.

Having observed that in this country the fall is always remarkably fine, I trim my vines as soon as the leaves are off, in so doing, I give a chance to that slow but constant vegetation which is carried on with all its force to perfect the buds and wood which are left on the vines.

This principle of vegetation is very remarkable in our forests during the fall and winter.

The vine also presenting less surface to the storms, is much less injured. Finally, by an early trimming a considerable quantity of sap is generally raised to the surface of the cut, which fills up the pores of the wood, coagulates, and thereby *nature plasters them* to meet the severity of the winter, or bleeding in the spring.

Very respectfully, I remain yours, &c.

Thos. Gimbreoe.

RURAL ECONOMY.

On the Management of Vicious Horses.

J. S. Skinner, Esq.

It is extraordinary, Mr. Editor, how few, how very few there are, among the thousands who have the management of this useful and beautiful animal, who ever dream of consulting his temper or disposition, in endeavouring to cure him of bad habits, or who ever think of applying any other remedy for such habits, (whether natural or acquired,) than the universal "cure all," a whip. If he kick, whip him, and if he does not break your carriage, or your neck this time, he may not possibly the next. If he incline to run away, whip him, and if your bit be a twisted bar, or a Turkish curb, he may find time to kick as well as run. If he stand and won't move a peg, whip him, or should that fail, make a fire under his belly, and you may learn, (if he does not lie down and smother it,) how much roasting particular breeds or tempers will stand; and so on through the whole catalogue, be the fault what it may, the whip is the panacea. Now I will venture to say, that it is (when applied as a cure,) the very worst of remedies: it has been the cause and confirmation of more bad habits, and the means of more mischief to man and horse, than the most mischievous of the numerous theories, that the last century has produced for the cure of either; this is the more to be regretted, as there is a cure, and a simple one too, for every vice a horse may have (save that of shying,) within the reach of every man who owns one; starve him, keep him from food and water, and awake for twenty-four hours only, and mark the change in his appearance, his very looks shew, you have a different animal to deal with; take as an example of what wonders it will work, the following: I had some few years ago a horse, that, while in my hands, was esteemed a first rate one, his make and shape, constitution and action, was all that could be wished for, (so far at least as service was concerned.) In his temper, he was what horsemen call "gritty," and when angry, had an ugly way of shewing too much of the white of his eye, to be engaging or agreeable; but as he never refused the performance of any task by night or by day, I chose to saddle him with, let him have his humour in the matter of the white of his eye, without quarreling with him about it. A friend, (who by the way, was no downright Nimrod,) persuaded me to let him have him; as he never "handled the ribbons" himself, he fell under the care of a sable knight of the thong, who, in his own opinion, was a first rate whip, and in mine, very like La Fleur's ass. I gave him a caution about Tom's temper, which, to say truth, was none of the kindest; he was delicate, very delicate, about taking a dose of "long oats," and if applied roughly, by a strange or unskilful hand, he would lash out and "fetch 'em a volloper." This to Cuffee, was all "my eye and Tommy," it went in one ear and came out the other. Tom and Cuffee had not been long together, when upon some offence taken, Tom looked round with one of "them en ogles," which, for expression, were not easily matched, and which Cuffee, without being a Lavater, thought looked a little "rum-scum-shious," so he took time by the forelock, and made Tom's fore-shoulder and his staff of office acquainted by way of a hint, to keep his head straight and his "eyes right." Tom put up with this after a flourish or two, and a shake of the head, which said, as plainly as a horse *could* speak, look out for breakers. On they jogged—Tom "with fire in his eye, and all h—ll in his heart," and Cuffee whistling "high-for-Ginne," they had gone a half mile or more, when they met a boy with a basket, which (together with a buffalo skin) Tom could not abide; and so gave more of the road to the boy and the basket than Cuffee thought right or necessary, and without more ado, with a beautiful back handed figure of S, (he was the near horse,) he planted his cracker in Tom's flank, upon which Tom "let split" and came within an ace of planting Cuffee for good. From this time forward, they never came together without a battle. In a week Tom staked, and though Cuffee dealt him "long oats" with a liberal hand, and had actually "stablished a ram" the more he "put on the string" the more Tom wouldn't go, and as the four legged brute turned out the more obstinate of the two, Cuffee was obliged to give it up as a badish sort of a job; in short, the horse was ruined, he made slivers of every thing he was hitched to, and getting (under the hands of the various doctors, who administered the same medicine in different shapes) from bad to worse, he grew at length so savage, that scarcely a man on the farm dare go into his stall to feed or water him. My friend begged me, if I valued the lives or limbs of his people, to take back this devil in the shape of a horse, or he would pistol him where he stood. I gave him 40 dollars for the clipper, and had him brought home; I knew his worth and qualities, and determined to break him of the habits he had acquired if possible. I put him in the stable and let him stand 24 hours without food or water, I then put a man upon his back, and turned him into a deep ploughed field, where I kept him going at a moderate pace, until he was so leg-weary he could scarcely stand; without giving him time to recover, I clap't the harness on his back and coupled him up between two stout plough horses, and drove him for an hour or two, without any thing behind him—thus ended the first day's lesson. I sent him back to his stall and gave him as much to eat as would keep soul and body together, until the next day, when you would scarcely have known him for the same horse; he had but little the appearance of "fiery Tom the clipper." I harnessed him at the stable door, and drove him without difficulty between the others, to the field. After exercising him for two hours in this way, I put the harrow behind him, when he took to the bar kindly, and without an attempt at a balk. I continued him at this for two or three hours, and kept stopping and starting him, until I could perceive no signs of restiveness, or any disposition to falter in the go off; I do not even remember to have seen the white of his eyes during the day. In this way I progressed from the harrow to the plough, and from the plough to the wagon, giving him a good deal of work and not *too much* to eat, during all this time, I treated him in the gentlest manner possible, and never permitted a whip to be seen, or a rough word spoken, until his habits and temper were completely and radically altered. In one month from the day he returned to me, I drove my wife out with Tom before the gig,—from that time until the day he died (seven years after,) he never shewed the slightest disposition to relapse, although he was at different periods as fat as a seal. I cured him of his dread of the basket and buffalo skin in this way: I put him in a stall (without a halter,) the front and manger of which was open to the carriage-house floor—I commenced with the old receipt, 24 hours without any thing to eat or drink, I then shewed him a basket, and as quickly as I afterwards could, gave him a pint of oats; in the course of an hour, I repeated the same process, coming a little nearer, and shewing him the basket, and giving him his food or water immediately after; in less time than you would believe it possible, the basket became to him a signal, looked for with as much anxiety, and seen with signs of pleasure as clearly expressed, as ever were those of fear; so with the buffalo skin, in a week, you might have blanketed him with it. When I excepted shying, as the only dangerous vice I knew of, not to be reached by this method of management, I meant, the shy a horse makes, when you cannot discover at what he takes fright, and when it is an even chance the horse himself don't know. I have seen horses (those especially in high condition,) shy at such times, and in such places, as satisfied me it was affectation, or sheer caprice; you will find them cut this caper on a down, or sandy plain, when there is neither shadow nor living thing, not even a leaf to startle them, and yet start they will. The object once discovered the difficulty is over; a horse will, (when brought to it in the way I have described,) as soon acknowlege the beat of a drum, or report of a pistol, as the signal to his dinner, as he does the opening of a binn, or the ratling of a sieve.

The whip, even on the road, three times out of four, does more harm than good; how many fine horses have had their loins or limbs strained, from the sudden start the "planting of the cracker" has occasioned; and how many more, have lost their eyes, or had their tempers ruined, and their spirit broken, from the love a common "coacheo" has to hear the musick of his thong. In one, and in only one case that I know of, can a whip be *safely* trusted with an every day driver, and that is, when you have two horses that are lazy and equally so, if you wish to go a thought faster, he must hit Jack as well as Jerry; hit Jack, and he gives Jerry a jerk; hit Jerry and he returns the compliment to Jack; and so you go, steady five miles an hour, or steady by jerks, six. But if you want to be made nervous for life ride ten miles along-side of a fellow, who has ten white-oak fingers, *but no hand*, who has in his team a lazy and a spirited horse coupled: among the miseries, this in my opinion stands first. Were I to choose between a pair of such ill-assorted ones, (though they had every other quality a horse should have) and a pair of willing snorters (though the "biggest devils" that ever wore hair,) I should not hesitate to take the last; they *might* by proper means be brought to know and do their duty, but to put spirit (permanently) into a nag whose spirit is broken, or is born without it, passeth my understanding. I say *permanently*, because I do know of a mode of putting some extra mettle (for an hour or so perhaps,) even into the dullest brute: separate him from his mate, (if his mate be a spirited one,) and give him, with the severest whip you can procure, half the number of lashes he would receive in going ten miles, speak to him in some sharp peculiar tone, before each stroke, by way of hint that it is coming, and endeavour to frighten, as well as hurt him; horses have excellent memories, and it is probable he will remember a lesson of this sort, judiciously given, and be *apt to take* the hint when you give it; and it is *possible*, with good management and a wire cracker, that in a journey of ten miles, nothing more than a hint will be necessary. If it should be so, and this answers, you will have escaped the misery of wearying and fretting a spirited animal in fruitless endeavours to assist him, by punishing his companion.

Godolphin.

INTERNAL IMPROVEMENT.

(From the Journal of the Franklin Institute.)

On the power required to propel Carriages on Rail-roads, compared with that for moving boats in Canals. *By James P. Espy.*

There is not, I believe, any subject connected with the arts which presents higher claims to public attention than that of rail-roads; a subject which has been recently treated in an able and perspicuous manner, in a work which deserves to be most particularly recommended to the notice of practical men; the "Rail-road Manual, or a brief exposition of principles and deductions, applicable in tracing the route of a rail-road. By S. H. Long, Baltimore, Lieut. Col. Engineers, in the service of the Baltimore and Ohio Rail-road Company." In two neat little volumes, published in Baltimore, in September last. The talents, the practical acquirements, and the zeal of Col. Long in the public service, are too well known to need any eulogium from me. Every one desirous of information respecting rail-roads, should consult this work; there is one point respecting these structures, which ought to be pressed again and again on the attention of the public, until they are fully aware of the immense advantages rail-roads offer over every other mode of conveyance.

It is known to men of science, that it has been proved, by the most unexceptionable experiments, that the friction of a carriage on a well constructed rail-road, is not increased with an increased velocity; or, in other words, that the tension of a rope with which a carriage on a rail-road is drawn at one time, with a uniform velocity of 20 feet per second, at another with a uniform velocity of 40 or 100 feet per second, is the same; whilst the tension of a rope drawing a canal boat is 4 times as great with a double velocity, 9 times as great with a triple velocity, and 100 times as great for 10 times the velocity, and, indeed, a little greater, as is clearly shown by some very late and beautiful experiments by Mr. Walker, detailed in the last volume of the Transactions of the Royal Philosophical Society; that is, the resistance increases in a higher ratio than that of the square of the velocity.

Now it has been shown by Mr. Wood, (in his work on canals and rail-roads,) that the resistances on canals and rail-roads are equal, with a velocity of 3½ miles an hour; amounting to about one pound of resistance for every 200 pounds of load: and, according to this ratio, he has calculated, that with a velocity of 6 miles an hour, 3 times as many horses would be required to do the same quantity of work on a canal, which would be required on a rail-road. But, when the new rail-road carriage, invented by Winans shall be introduced, the resistance may be fairly calculated not to exceed one pound to a thousand, or one-fifth of the quantity allowed by Mr. Wood. According to this ratio, the resistance on a canal would be equal to that on a rail-road, with a velocity on the former of 1 6-10 mile per hour; a double velocity, or 3 1-5 miles per hour, will give four times the resistance on the canal; ten times the velocity, or 16 miles, will give 100 times the resistance; and 20 times the velocity, or 32 miles, (the greatest velocity which locomotive engines have been made to move in Great Britain, would give the enormous resistance of 400 times, in favour of rail-roads. And this is calculated on the supposition that the resistance on canals increases only in proportion to the squares of the velocities, when, in fact, (especially if the canal is narrow and shallow,) it increases in a higher ratio, whilst that on rail-roads is the same at all velocities.

For example, suppose the power to be estimated by the quantity of coals consumed in transporting a given weight with the various velocities mentioned above, it will be found, if the velocity is one mile and six tenths per hour, the quantity will be the same on the canal as on the rail-road; whereas, if the velocities are 16 miles an hour, the quantity consumed on the canal will be 100 times greater for every mile and one-sixth, while that on the rail-road will remain exactly the same. Now when it is recollected that a very great velocity cannot be obtained at all on canals, and that a velocity of 20, or even 30 miles per hour, can be obtained on a rail-road, with no greater expenditure of coals per mile than would be required on a canal with a velocity of 1 6-10 miles per hour, we may predict, with the greatest confidence, that canals, in a few years, will be entirely supplanted by rail-roads.

This subject should be well studied by public functionaries, lest, at the very moment when canals are about to become obselete, they ignorantly spend the public money on what, in a few years, will be of no use.

LADIES' DEPARTMENT.

(From the Boston Token.)

THE BUGLE.

But still the dingle's hollow throat
Prolonged the swelling bugle note,
The owlets started from their dream,
The eagles answered with their scream,
Round and round the sounds were cast,
Till echo seemed an answering blast.
Lady of the Lake.

Oh! wild enchanting horn!
Whose music up the deep and dewy air,
Swells to the clouds, and calls an Echo there,
Till a new melody is born!

Wake, wake again! the night
Is bending from her throne of beauty down,
With still stars burning on her azure crown,
Intense, and eloquently bright!

Night, as its pulseless noon!
When the far voice of waters mourns in song
And some tired watch dog lazily and long
Barks at the melancholy moon!

Hark! how it sweeps away,
Soaring and dying on the silent sky,
As if some sprite of mould went wandering by
With lone halloo and roundelay!

Swell, swell in glory out!
Thy tones come pouring on my leaping heart,
And my stirred spirit hears thee with a start,
As boyhood's old, remembered shout!

Oh have ye heard that peal,
From sleeping city's moon bathed battlements,
Or from the guarded field, and warrior tents,
Like some near breath around you steal?

Or have ye in the roar
Of sea, or storm, or battle, heard it rise
Shriller than eagle's clamor, to the skies,
Where wings and tempests never soar?

Go, go—no other sound,
No music that of air or earth is born,
Can match the mighty music of that horn,
On midnight's fathomless profound.

MISCELLANEOUS.

BIRDS.

If, as no one can deny, the study of the animated productions of nature be one of the most delightful that can occupy the attention of man, it is equally true, that of that wide and varied kingdom, the chosen province, the very paradise, is the birds. The gracefulness of their forms, the exquisite delicacy of their covering, the inimitable brilliancy of their colours, the light and life-giving transparency of the element in which they live, the singular variety of their habits, the delightful melody of their songs, and the most singular fact, that, with organs apparently more unfitted for articulation than many of the quadrupeds, they are the only animals that can imitate man in the wonders of voice, and rival him in the intricacy of music: these, and a thousand other qualities, with the bare enumeration of which we could fill a number of our journal, render the study of birds a favourite of every elegant mind. Even the fleetest of quadrupeds is heavy and lumbering, in comparison. We boast of the greyhound, which lies panting and breathless upon the earth if it courses round a moderately-sized field, or the race-horse that is exhausted with a three-mile heat; but what are these to the little Swift, that can awaken from the eves of an English cottage in the morning, and nestle in the date tree on the borders of the great desert of Sahara before the sun be down? That little twitterer is the very puck of creation: it cannot, indeed,

> "Put a girdle round about the earth
> In forty minutes;"

but, at the rate of 250 miles an hour, which is considerably within the computation of Spallanzani, it can cincture the globe in less than four days, and thus be from England to Africa, in the brief space of four hours: even the eider-duck, apparently unwieldy as it is, could breakfast in Eastness, and sup in Kent; and, let the storm blow its worst, the golden eagle can dash right in the teeth of it at the rate of forty miles an hour.

The world is a great book, of which they that never stir from home read only a page.

(From the American Turf Register and Sporting Magazine, No. 7, for March, 1830.)

NATURAL HISTORY.

The interesting animal whose natural history we sketch for our present number is described by naturalists as belonging to the same class, order, and family as the *bear*, the outlines of whose history we gave in our preceding number; namely:

Class. Mammalia, &c.—*Order*—Carnivora, &c.—Family, the Ursini, &c.

Genus 3. *Procyon* of Cuv. *Ursus.* Lin. Upper jaw not much exceeding the lower; no vacant space between the tusks and grinders; body lengthened, and a little higher on the legs than that of the *badger;* tail very long and hairy.

There are only two species belonging to this genus, known. The one we shall particularly describe is the

RACCOON. (*P. Lotor.*)

The length of the raccoon is little less than two feet from nose to tail, and the length of the tail nearly one foot. The *omentum* has a very remarkable structure, being comparatively large, and consisting of innumerable stripes of fat, disposed in a reticulated form, and connected by an extremely delicate membrane resembling a spider's web. Buffon had rather inadvertently limited the native abode of the raccoon to South America, whereas it chiefly occurs in the temperate quarters of North America, and in the mountainous districts of the West Indies. Those of Guiana and the high grounds of Jamaica are of another species—the *procyon cancrivorus*, or *crab-eater.* It is said of the latter species, that multitudes of them frequently descend into the plantations of Jamaica and make great havoc among the sugar canes. They likewise greedily devour maize, various sorts of fruits, eggs, birds and shell fish, and are particularly fond of oysters and crabs. *Brickell* informs us, that one of them will stand on the side of a swamp, and hang its tail over into the water, while the crabs mistaking it for food, lay hold of it; and as soon as the creature feels them pinch, he pulls them out with a sudden jerk. He then takes them to a little distance from the water's edge, and, in despatching them, is careful to get them crossways in his mouth, lest he should suffer from their claws. The land crab he takes by putting one of his fore paws into the ground, and dragging it out.

The species which we are now describing is found throughout the whole of North America: and they still continue to be numerous in many of the well peopled parts of the United States. Occasionally their numbers are so much increased as to render them very troublesome to the farmers in the low and wooded parts of Maryland, bordering on the Chesapeake bay. Their season of sexual intercourse begins in the first week of March; the female usually produces two or three cubs at a litter; her den is then made in some hollow tree or very secure situation. A young raccoon at thirty days old, is about the size of a common cat of a year old, though the greater length of its legs, and the bushiness of its pelage, make it at first sight appear much larger. There are some peculiarities about its organs of generation which Dr. Godman expresses in the following manner: "os peni inest, leviter versus glandem curvatum; testiculi et caput penis, tempore amoris incipiente, notabiliora pendentioraque deveniunt. Fæminam contra terram vel aliquod durum, frequentissime genitalia fricare notavi; profecto et marem aliquando, simili modo, sese diligenter agitare vidi."

The raccoon sleeps from noon till midnight, feeding chiefly in the dark. He is an active and sprightly animal, moving forward chiefly by bounds; and although he proceeds in a singularly oblique direction he runs very swiftly. His sharp claws enable him to climb trees with great facility; and he ventures even to the extremities of the branches. He is easily tamed, and is then good natured and sportive, though somewhat capricious, and always restless, manifesting at the same time the plaguey and inquisitive disposition of the monkey, examining every thing with his paws, which he uses as hands. He eats in a sitting posture, and is very partial to sweetmeats and strong liquors. He drinks both by lapping and suction, washes his face with his feet like a cat, and immerses most of his food in water before eating it. It is in consequence of this peculiarity that the specific name *lotor*, washer, has been applied to him. Were we to form an opinion of this animal's character solely from external appearances, the mingled expression of sagacity and innocence exhibited in his aspect, his personal neatness and gentle movements, might all incline us to believe that he possessed a guileless and placable disposition. But in this, as in most other cases, where judgments are formed without sufficient examination, we should be in error, and find that to the capricious mischievousness of the monkey, the raccoon adds a blood thirsty and vindictive spirit, peculiarly his own. In the wild state, this sanguinary appetite frequently leads to his own destruction, which his nocturnal habits might otherwise avert; but as he slaughters the tenants of the poultry yard with indiscriminate ferocity, the vengeance of the plundered farmer speedily retaliates on him the death so liberally dealt among the feathered victims. This destructive propensity of the raccoon is more remarkable, when we observe that his teeth are not unsuited for eating fruit. When he destroys wild or domesticated birds, he puts to death a great number, without consuming any part of them, except the head, or the blood which is sucked from the neck.

The conical form of the head, and the very pointed and flexible character of the muzzle or snout, are of great importance in aiding the raccoon to examine every vacuity and crevice to which he gains access; nor does he neglect any opportunity of using his natural advantages, but explores every nook and cranny, with the most persevering diligence and attention, greedily feeding on spiders, worms, or other insects which are discovered by the scrutiny. When the opening is too small to give admittance to his nose, he employs his fore-paws, and shifts his position, or turns his paws sideways, in order to facilitate their introduction and effect his purpose. This disposition to feed on the grubs, or larvæ of insects must render this animal of considerable utility in forest lands, in consequence of the great numbers of injurious and destructive insects he consumes. He is also said to catch frogs with considerable address, by slily creeping up, and then springing on them, so as to grasp them with both paws.

The voice of the raccoon, when enraged, is very singular; sometimes resembling the whistling of a curlew, and at others the hoarse barking of an old dog. "I have observed," says Mr. Blanquart de Salines, "that the animal never left hay nor straw in his bed, prefering to sleep on the boards; when litter was given, he threw it away immediately. He did not seem very sensible to cold, and passed two out of three winters, exposed to all the rigours of the season, and did well, notwithstanding he was frequently covered with snow. I do not think he was solicitous to receive warmth; for during some frosts I gave him separately warm water and water almost frozen, to soak his food in, and he always preferred the latter. He was at liberty to sleep in the stable, but often preferred passing the night in the open yard."

The fur of the raccoon forms an article of considerable value in commerce, as it is largely employed in the fabrication of hats. Vast numbers of raccoon skins are collected by the different fur companies; and we occasionally see in our furrier stops, skins which must have belonged to individuals of much larger size than those from which the measurements have been hitherto taken.

The pelage of the raccoon is subject to considerable variations of colour at different periods of life, and in different individuals. The rings on the tail, and the patches around the eyes are, however, uniform and constant. The tail of the raccoon is not affected by the coldest weather; hence this quadruped is never known to gnaw his tail, as has been observed of animals closely allied to it in configuration and habits. This is especially the case with the *coati*, or *coatamundi* of South America, and it has been considered very wonderful that the animal should *eat his own tail,* which certainly *appears* to be the fact. The cause of this admits of being easily assigned;—the extreme length of its tail, in which the blood circulates but feebly, exposes it to the influence of the cold or frost; and the exceedingly tormenting irritation produced thereby, leads the animal to gnaw and scratch the tail to relieve this excessive itching. The disease spreads, and the anguish induces the coatamundi to gnaw more furiously, and eventually his life is destroyed by the extension of the inflammation and irritation to the spine.

As we said before, there are but two species belonging to this genus; namely,

1. The *raccoon*, procyon lotor—Dr. Godman's American Nat. His. p. 163.
2. The *crab-eater*, p. cancrivorus, Geoff.

A small neglect sometimes breeds a great mischief—for want of a nail, the shoe is lost—for want of a shoe, the horse is lost—for want of a horse, the rider is lost.

Quick returns make rich merchants.

(From the Journal of Health.)

ROOMS WARMED BY HEATED AIR.

The best method of creating and maintaining a proper degree of warmth in our dwellings during the winter, is a subject of very great importance, both in respect to health and comfort.

It is true, that by means of our common stoves or grates, with the aid especially of anthracite coal, a sufficient amount of heat may be produced, even in the coldest weather. But the great inconvenience of the heat obtained in this manner, is, that in small rooms it is apt to be oppressive, and in large apartments it is unequally diffused—the immediate neighbourhood of the fire being oppressively hot, while the remote parts of the room remain uncomfortably cold. Under these circumstances, health is invariably jeopardized—the body being either subjected to too warm an atmosphere, or to rapid alternations of temperature; the latter, in many instances, even within the same apartment.

To remedy the inconvenience here alluded to, the ingenuity of various individuals has been exerted, and numerous plans have been suggested. No one of these appears, however, so fully to answer, as that of warming houses by means of heated air. It is perhaps in this manner alone, that we can obtain at once a moderate and equable temperature, throughout the apartment.

This is effected by a furnace placed in the cellar, and so constructed as to keep constantly heated a large body of air, which is conducted by means of flues or pipes, to any part of the house that may be desired.

An additional advantage of this method of warming rooms, is, that the air of the latter not being required for the support of the fire, it becomes less rapidly contaminated—and hence, one of the most serious objections to close apartments occupied by several individuals, is in a great measure removed.

The United States bank, St. Andrew's church, the medical department of the University, and several stores, and private dwellings in this city, (and we believe Professor R. W. Hall, in Baltimore,) are warmed in the manner here alluded to. A description, and plan, of the furnaces employed, we are in hopes of being able to lay before our readers, on a future occasion.

So important an improvement do we consider this method of warming apartments, that we trust the time is not far distant, when no building of any size, will be erected without the necessary means for putting it into execution.

RECIPES.

A NEVER YIELDING CEMENT.

Pound calcined oyster-shells, sift the powder through a silk sieve, and grind it on a porphyry slab, till reduced to the finest powder; then take the *whites* of several eggs, according to the quantity of powder, beat them well, and having mixed them with the powder, form the whole into a kind of paste: with this paste join the pieces of china or glass, and press them together for seven or eight minutes, and the united parts will stand heat and water, and will not come apart if they should fall on the ground.

INDELIBLE INK.

Pour a little nitric acid (aqua fortis) into a cup or glass, and add to it a small piece of pure silver; when the effervescence ceases, filter the solution through a piece of blotting paper, and put it into a small phial; then add to it a little gum arabic, and a little of the paint called sap green. After the whole is perfectly combined, it is then fit for use.

FOR CLEANING MARBLE, JASPER, AND PORPHYRY.

Mix up a quantity of very strong soap lees with quick lime, to the consistence of milk, and lay it on the marble you wish to clean, where it may remain twenty-four or thirty hours; it is afterwards to be cleaned with soap and water, and it will appear as if new.

TO PRESERVE POTATOES IN A DRIED STATE.

Wash them, cut them in pieces, steep them forty-eight hours in fresh water, and dry them in an oven. One hundred parts of fresh potatoes will give thirty so prepared and dried. In this state they may be kept for years, or ground at once into flour. This flour, mixed with a third part of that of rye, will make excellent bread. Potatoes dried as above, moistened with olive oil, and ground, may be used as coffee.

AROMATIC VINEGAR.

Macerate during four days two ounces of rosemary and two ounces of sage, with one ounce of lavender and one drachm of cloves, in four pounds of wine vinegar, then filter the expressed liquor through paper.

THE FARMER.

BALTIMORE, FRIDAY, MARCH 12, 1830.

☞ Will the Washington papers, in which the mistake originated, and from which it has been copied into the journals of the day, have the goodness to state, that no memorial has been presented to either branch of Congress, relative to supplying that City with water, nor on any other subject, by J. S. SKINNER of BALTIMORE. It is supposed that the memorialist was the Rev. J. L. Skinner of Washington. The only public work of that kind, in the accomplishment of which J. S. S. of Baltimore has ever participated, was the drawing up of that part of the Report of the Board of Visiters to the Military Academy at West Point in 1825, which had relation to its domestic economy, and in which he sketched the means, expense, and advantages of procuring for that great school an abundant supply of pure water, from the neighboring heights, in lieu of the precarious supply, and that of inferior quality, on which it then relied.

He has since had the satisfaction to learn from Col. Thayer, the highly accomplished superintendent of the Academy, that Congress had afforded the means of accomplishing the object—that the plan had been adopted, and that all the benefits anticipated have been fully realized; having now at command an abundance for domestic uses, and for quickly preventing a destruction of the public buildings by fire.

Mr. S. of B. has been long under the impression that no city in the Union is more remarkable than Washington for its copious springs of good water and general salubrity. If temperance societies do not succeed there, it will be rather from the hospitality of the good people, and the insinuating presence of their old Madeira, their generous Port, their sparkling Champagne, and their Chateau Margeaux, than from the absence or scarcity of pure Adam's ale.

CONTENTS OF THE AMERICAN TURF REGISTER AND SPORTING MAGAZINE, No. 7, FOR *March*, 1830.

PORTRAIT *of a celebrated* GREYHOUND.

Memoir of Highflyer, his performances, and a list of his most celebrated progeny—Racing Achievements of the late Col. John Tayloe, from 1791 to 1806, giving an account of 141 races—Breaking Horses, description of a mode successfully pursued—Taming wild horses—Prince Frederick, his performances in England and America—Of over-reaching in horses, with a recipe for making healing ointment—Cure for Contusions or Bruises in horses—A few Practical Rules for Breaking Dogs—On Pigeon Shooting, with the rules of a celebrated Club in England, and the result of four days of their shooting—Theory of Projectiles—Account of Grouse Shooting in New Jersey—Raccoon, natural history of—Snipe, history and habits of—Deer hunting in North Carolina,—Hunting Song—Sagacity of fox hounds—Anecdote of General Washington and Mr Jefferson—The Grey hound, with the laws of the Leash or Coursing in the reign of Queen Elizabeth—Great run of a red fox—Extraordinary sagacity and extraordinary death of a fox hound bitch—Equestrian Performances—List of Stallions for 1830—SPORTING INTELLIGENCE: Pigeon matches near Baltimore—Cocking, grand main fought at Harrisburg—Races of the Mississippi Association on the St. Catherine's course—The celebrated race between Monsieur Tonson and Sally Walker, over the Boydton course in 1826—Sweepstakes run over the Broad rock course—Sweepstakes to be run over the Long Island course—Laws of New York relating to game—TURF REGISTER, Pedigrees.

LATEST FOREIGN NEWS.

By the Dover, at Boston, Liverpool papers to the 22nd January, have been received.

There is little doubt that Mr. Vesey Fitzgerald will retire from the board of trade—but not from any political cause.

From the following paragraphs and from others in the English newspapers, it would seem that the fate of Greece cannot yet be considered settled. The difficulty is, which shall predominate in the new government about to be established there, the Russian or the French and English interest.

"*Toulon Jan.* 11.—The Lamprove corvette, Lieut. Dussault, will set sail to-day for the Levant. This vessel has on board 400,000 francs for the brigade in the Morea, as well as provisions and stores for the vessels of the division.

"You have been informed of the hasty fitting out of the Breslau and Provence, the destination of which seemed to be uncertain. To-day orders have been given to all the port officers to employ all possible means that the resources of the arsenal can supply, to get the following vessels ready to put to sea again at the first order, viz: the Ville de Marseilles, the Scipion, of the line; the Iphigenie, Didon, Armide, and Syrene frigates; the Oise, and Emulation corvettes, the Dragon, Cygne, Aleste brigs; and to make all necessary repairs in all the other men of war in this port. The destination of these vessels is no longer doubtful—they are going to return to the Levant. *Those unhappy countries are, it seems going to be again the theatre of a general conflagration. The classic land of heroes and the arts is again to be traversed in all directions, by soldiers of all the nations of Europe*, guided by interest alone; and who, perhaps, will never agree, till there is not a single ruin left standing.

It is reported that proposals have been made to the Sultan for the cession of Palestine.

A French merchantman of 300 tons, had been captured by an Algerine cruiser, off Cape Palos. The crew escaped ashore in boats.

State of Trade.—The demand for woollen cloth in the market at Huddersfield continues undiminished, and the manufactories are all at work.

We announce with pleasure not only a still better demand for goods this week, but in some descriptions a small advance in prices. Considerable business has been done in the raw material, and large purchases made on speculation at a further advance of about ½d per lb.—*Manc. Chronicle.*

Egypt.—The following letter, addressed to the *Moniteur* by M. Jomard, gives some interesting details of the changes which the Viceroy of Egypt has introduced in this country, which he governs in the name of the Sultan:—

"The provinces have been divided into departments, into arrondissements, and sub-arrondissements, provincial assemblies are established. A central assembly, or general divan, composed of deputies from all the provinces, to the number of more than two hundred members, is to meet in the capital. Some thirty officers, civil and military, attached to the actual administration, are to form part of this divan. The Viceroy will submit to questions, of what nature soever they may be.

"The sittings of the assembly are public.

"The sending of young men to France, in order that they may be instructed in the different sciences—in jurisprudence, and in the useful arts—has not been discontinued. Six Egyptians have been sent to Toulon to learn the art of building ships of war.

"The younger brother of Noureddin Bey, a Major-General in the service of the Pacha, and four new pupils who are to apply themselves to the study of mechanics and various manufactures, have been sent to Paris.

"Recently thirty-four scholars, from the age of eight to fifteen, bave arrived at Marseilles; they are destined for the study of hydraulics, that of naval architecture, and fifteen other branches of mechanism. Thirty other pupils are to follow them. In fine, 115 other individuals, for similar purposes, are to arrive in France, independently of those young Egyptians who are to prosecute their studies in England. To finish the picture of these innovations which are casting their light over Egypt, we must not omit to add, that there is now printed in that country a periodical publication. The title of this journal is *The News of Egypt*, and it is inscribed on a pyramid, from behind which the rising sun is seen to shed its rays."

Portugal.—If the following be true, and the editor of the National Gazette avouches that the information comes from very respectable sources, our illustrious friend and ally, Don Miguel, may shortly find that fortune is a slippery jade. Nothing of the same purport was disclosed to the British public down to the 16th January.

London, 4th January, 1830.

"It was said yesterday, that our ministers had unanimously declared themselves against the usurper of Portugal, in the last Cabinet Council; and that in obedience to his majesty's positive orders, three couriers will be shortly despatched for Vienna, Petersburg, and Lisbon, in order to announce officially the determination of the government of Great Britain, and induce the other Courts to concur in the restoration of the constitutional government in Portugal. It was added, that Lord Aberdeen intimated to the agent of Don Miguel, that he might return to Portugal, as his mission had become useless. They say the Marquis de Palmella is certain George IV. will not fail in his promises, and that the year 1830, will see Donna Maria seated on her throne at Lisbon. There has been great fluctuation in Portuguese bonds: there are many sellers, but no buyers. It is feared a general bankruptcy will, in the course of January, be experienced at Lisbon; and that distress will, if there be no foreign interference, upset the priest-ridden government of Miguel."

Liverpool Markets.—The sales of cotton at Liverpool for the week ending Thursday, Janurary 21, were 10,000 bales; there were no imports. The demand had abated, and a trifling decline in price taken place.

Prices Current in New York, March 6.

Bees-wax, yellow .21 a 23. *Cotton,* New Orleans .10 a .12½; Upland, .9 a .10¾; Alabama, .9½ a 11½. *Cotton Bagging,* Hemp, yd. .18 a .21; Flax .13 a .18. *Flax,* American, 7 a 8. *Flaxseed,*rough, cask —— a ——; clean -— *Flour,*N.York, bbl.4.62½ a 4.75 Canal 5.00 a 5.62½; Balt. Howard st. 4.87½ a 5.00; Richmond city mills, 5.00 a —; country, 4.62½ a 4.75; Alexand'a, 4.62½ a 4.75; Fredericksburg 4.62½; Petersburg, 4.62½ a 4.75 Rye Flour, 3.25 a -——; Indian Meal, per bbl. 2.75 a -——; per hhd 13.00 a —— *Grain,* Wheat, Genesee, —— a —— Vir. 80 a 85; Rye, North, 60 a 65; Corn, Yel. Nor. .52 a 53; Barley, 68 a .70; Oats, South and North, .34 a .38; Peas, white, dry, 7 bu.——; Beans, 7 bu. 7.00 a 8.00. *Provisions,* Beef, mess 8.50 a 9.00; prime 5.62½ a 6.25; cargo ——a 4.50; Butter, N. York, .12 a .16; shipping, .6 a 10; Lard, .5 a .6; Pork, mess 11.25 a 11.75; prime 8.75 a 9.25.

Prices Current in Philadelphia, March 8.

Bees-wax, yellow —. a .20; *Beans,* bushel $1.00 a 1.25; *Beef,* mess 10 a 10.50, prime 8 a 9.00, cargo 7; *Butter,* No. 1, .8 a -, No. 2, 6. a--; *Cotton,* New Orleans .10½ a .12, Upland 10. a .11, Tennessee 9½ a .10½, Alabama 9½ a 10½; *Feathers,* South. .33 a .34, West. .30 a .32; *Flax* .7 a .7½. *Flour,* sup. 4.50; fine, 4.12½ a4.25; Rye 3.12½ a 3.25; Corn meal, hds. 11.00 a ——, bls. 2.12½ a 2.25; *Flaxseed.* cask 10.25; bu. 1.30 a ——; *Grain,*—Wheat 85 a 86—Rye .50 a.52, Corn l. c. white, .33 a .35, l. c. yellow, .35 a .36, u. c. round, .40 a .42; Oats .22 a .26, Barley, Pa. .60 a .62; do. East. .— a.—; black-eyed Peas .40 a .50. *Hams,* Jersey .8 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp,* 220 a 225; *Lard,* .5 a .6½; *Oil,* linseed, 72 a 75; *Pork;* mess, 11.25 a ——, prime 10.50 a 11; cargo 9.00 a 9.50, *Rice,* 2.50 a 3.00; *Tobacco,* Kentucky .5 a .7, Vir. .4½ a .7; *Wool,* common wasbed lb. .18 a .22, half blood .26 a .—; three quarters blood .28 a .32, full blood 28 a .32; unwashed, generally 6 cents less, according to quality.

TO PRINTERS.—The fount of TYPE on which the present number of the American Farmer is printed, will be sold low, for cash—it is remarkably well assorted, and would suit a country newspaper. Apply to

JOHN D. TOY.

FARM ON THE DELAWARE.

The subscriber offers for sale his valuable Farm, situated on the river Delaware, and extending thence to the Bristol Turnpike, on both of which it has a handsome front, being ten miles distant from Philadelphia, and one and a half from Holmesburg, comprising nearly 200 acres of Land in the highest state of cultivation, 25 of which is woodland, and 17 acres in orchard of the best grafted cider, and table fruit. The buildings are extensive and commodious—calculated to accommodate a large family, with a well stocked garden and pear orchard of four acres. A Tenant's House, Spring House, Ice House &c. &c.

A person may be accommodated with half the Farm, and any number of acres in addition, including all the buildings which are situated about half way between, the river and the Turnpike, commanding a splendid view of the Delaware. Apply to the subscriber at No. 79, South street, Philadelphia.

W. J. MILLER.

HORTICULTURAL.

The subscriber, agent for Messrs. D. & C. Landreth of Philadelphia, will receive orders for all kinds of Plants, Bulbous Roots, Fruit Trees, &c. cultivated by them, which will be carefully packed, and delivered in Baltimore, in good order, *with special care as to kind and quality.* He also keeps constantly on hand the Messrs. Landreth's superior Garden Seeds, all put up by them, and each paper bearing their warranty, and delivered here wholesale or retail, at the Philadelphia prices. Also on hand, a good supply of Clover, Lucerne and Orchard Grass Seeds of fine quality; and will shortly be supplied with other Grass Seeds. Also in store 500 bushels of Northern Potatoes of different kinds, that can be recommended for seed. Likewise, a few Black and Golden Peas from Germany.

JONATHAN S. EASTMAN.
No. 36, West Pratt street,
Between Charles and Hanover streets.

J. E. keeps, as usual, a constant supply of Agricultural Implements.

ALMANAC.

1830. March.	Sun. Rises.		Sun. Sets.		Length of days.		Moon. rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,...... 13	6	10	5	50	11	40	9	37
Sunday,......... 14	6	9	5	51	11	42	10	32
Monday,....... 15	6	8	5	52	11	41	11	30
Tuesday,...... 16	6	6	5	54	11	48	morn.	
Wednesday,.. 17	6	5	5	55	11	50	0	25
Thursday,..... 18	6	3	5	57	11	54	1	20
Friday,......... 19	6	2	5	58	11	56	2	15

Moon—Last Quarter, 16th, 6h. 29m. Even.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There is no change of moment in any of the staple articles. Flour remains the same as at last week, the wagon price of Howard street being $4.25 to 4.31. Beef on the hoof is more brisk, and several sales of fine lots have been made at $5.

Tobacco.--Seconds, as in quality, 3.50 a 6.00; do. ground leaf, 6.00 a 10.00.—Crop, common red, 3.50 a 4.00; brown and red 4.00 a 6.00; fine red, 6.00 a 8.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 45 hhds Maryland and 9 hhds Ohio; total 54 hhds.

Flour—best white wheat family, $5.50 *a* 6.00—super. Howard st. 4.87½ *a*——city mills, 4.00 *a* —-Susquehanna, ——. Corn Meal, bbl. —— *a* 2.25—Grain, best red wheat, 80 *a* -— best white do. .85 *a* .87½; ordinary to good, 75 *a* ——Corn, white, .30 *a* 31—yellow .32 *a* —— Rye, .48 *a* —— Oats, .25 *a* .—— Beans, 90 *a* 1.00—Peas, .65 Clover seed, 4.75 *a* 5.00 —Timothy, - *a* 2.50-Orchard Grass, 1.75 *a* 2—Herd's, —— *a* —-Lucerne .37½ *a* —— lb.—Barley, ——Flaxseed, 1.06 *a* 1.12½-Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12 —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .21½ *a* 22; in bbls. .— *a* 23½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.—Hemp, Russia, ton, $215 *a* 220; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, —— *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel. No. 1, 6.25 *a* —— No. 2, 6.00 *a* —-No. 3, 3.75-—Bacon, hams, Balt. cured, .9 *a* .9½—Feathers, .30 *a* ——Plaster Paris, cargo price per ton, 5.25 *a* —— ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, .4.00 *a* 5.00—Pine Wood, by the vessel load, 2.12½ *a* 2.25—Oak Wood, 3.00 *a* 3.25—Hickory, 4.00 *a* 4.25.

CONTENTS OF THIS NUMBER.

Memorial to Congress of the Farmers, &c. of Philadelphia County, soliciting protection for their products—On the Management of Lands permanently under Grass—Address of the Pennsylvania Silk Society to the Public—On Pruning Grape Vines—Information on the Transplantation of Trees and Shrubs in full verdure, by M. L'Abbe Berlese—Grape Vines sent by Mr. Herbemont to the Agricultural Society of South Carolina—On pruning and plastering Grape Vines to prevent their bleeding—On the Management of Vicious Horses—On the power required to propel carriages on Rail-roads compared with that for moving boats on Canals—*Poetry,* The Bugle—On the speed of birds—Natural history of the Raccoon, with an engraving—Rooms warmed by heated air—Recipes—Editorial; Contents of Turf Register, No. 7—Latest Foreign News and Prices—Prices in the New York, Philadelphia and Baltimore Markets—Almanack for the week.

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